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LOGOS YAYINCILIK TİC. A.Ş.
Yıldız Posta Cad. Sinan Apt. No. 36 D. 66/67 34349
Gayrettepe-İstanbul

Tel: (0212) 288 05 41
Faks: (0212) 211 61 85
mail: logos@logos.com.tr
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ISSN 2146-2372
e-ISSN 1309-9566

İzmir Dr. Behçet Uz Çocuk Hastalıkları ve Cerrahisi Eğitim ve Araştırma Hastanesi Dergisi

Journal of Dr. Behçet Uz Children's Hospital

Cilt / *Volume* 10, 2020
Kongre Özel Sayısı / *Special Issue*

İzmir Dr. Behçet Uz Çocuk Hastanesi Dergisi, İzmir Dr. Behçet Uz Çocuk Hastanesi'nin resmi yayın organıdır.

Dergi dört ayda bir yılda 3 sayı (Nisan, Ağustos, Aralık) olarak yayımlanan açık erişim, ücretsiz ve hakemli bir dergidir.

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The journal of Dr. Behcet Uz Children's Hospital is the official journal of the Izmir Dr. Behcet Uz Children's Hospital.

It is published three times a year (April, August, December).

BUCH Journal is an open Access, free and peer-reviewed journal and indexed in ESCI (Emerging Sources Citation Index) *EBSCO and ULAKBİM TR Dizin.*

Bu dergi asitsiz kağıda basılmaktadır. / This journal is printed on acid-free paper

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DR. BEHÇET UZ ÇOCUK KONGRESİ SÖZLÜ BİLDİRİLER

4-7 Mart 2020,

Swissotel Büyük Efes-İzmir

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Yayın Politikaları ve Yazım Rehberi

AÇIK ERİŞİM POLİTİKASI

Logos Yayıncılık, yayınladığı dergilerde, Budapeşte Açık Erişim Bildirgesinde yer alan, hakemli dergi literatürünün açık erişimli olması girişimini destekler ve yayınlanan tüm yazıları herkesin okuyabileceği ve indirebileceği bir ortamda ücretsiz olarak sunar.

Bu bildirgede açık erişim, "bilimsel literatürün İnternet aracılığıyla finansal, yasal ve teknik bariyerler olmaksızın, erişilebilir, okunabilir, kaydedilebilir, kopyalanabilir, yazdırılabilir, taranabilir, tam metne bağlantı verilebilir, dizinlenebilir, yazılıma veri olarak aktarılabilir ve her türlü yasal amaç için kullanılabilir olması" anlamında kullanılmıştır. Bu sebeple İzmir Dr. Behçet Uz Çocuk Hastanesi Dergisinde yer alan makaleler, *yazarına ve orijinal kaynağa atıfta bulunulduğu sürece*, kullanabilir.

12 Eylül 2012 tarihinde kabul edilen, yayın kurulumuzun da benimsediği bu açık erişim politikalarına http://www.budapestopenaccessinitiative.org/boai-10-translations/turkish-translation adresinden ulaşılabilir.

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Bu lisans, diğerlerinin ticari olmayan amaçla eserinizi karıştırarak farklı bir sürümünü oluşturmasına, ince ayar yaparak geliştirmesine, ya da eserinizin üzerine inşa ederek kendi eserlerini oluşturmasına izin verir. Onların yeni eserleri gayri-ticari olmak ve size de atıfta bulunmak zorunda olmasına rağmen, onlar ortaya çıkan türetilmiş eserlerini aynı şartlar ile lisanslamak zorunda değildir.

ETİK POLİTİKASI

Bu etik ilkeler, COPE (Committee on Publication Ethics) tarafından hazırlanan yönerge esas alınarak, Logos Tıp Yayıncılık tarafından benimsenmiş ve paydaşlar tarafından da benimsenmesi önerilerek, bir kısmı aşağıda sunulmuştur. Detaylı bilgi için web sayfamızı incelemeniz önerilir.

Bilimsel araştırma ve yayın etiğine aykırı olduğu düşünülen eylemlerden bazıları:

- İntihal: Başkalarının özgün fikirlerini, metotlarını, verilerini veya eserlerini bilimsel kurallara uygun biçimde atıf yapmadan kısmen veya tamamen kendi eseri gibi göstermek,
- Sahtecilik: Bilimsel araştırmalarda gerçekte var olmayan veya tahrif edilmiş verileri kullanmak
- Çarpıtma: Araştırma kayıtları veya elde edilen verileri tahrif etmek, araştırmada kullanılmayan cihaz veya materyalleri kullanılmış gibi göstermek, destek alınan kişi ve kuruluşların çıkarları doğrultusunda araştırma sonuçlarını tahrif etmek veya şekillendirmek,
- Tekrar yayım: Mükerrer yayınlarını akademik atama ve yükselmelerde ayrı yayınlar olarak sunmak,
- Dilimleme: Bir araştırmanın sonuçlarını, araştırmanın bütünlüğünü bozacak şekilde ve uygun olmayan biçimde parçalara ayırıp birden fazla sayıda yayımlayarak bu yayınları akademik atama ve yükselmelerde ayrı yayınlar olarak sunmak,
- Haksız yazarlık: Aktif katkısı olmayan kişileri yazarlar arasına dâhil etmek veya olan kişileri dâhil etmemek, yazar sıralamasını gerekçesiz ve uygun olmayan bir biçimde değiştirmek, aktif katkısı olanların isimlerini sonraki baskılarda eserden çıkartmak, aktif katkısı olmadığı halde nüfuzunu kullanarak ismini yazarlar arasına dâhil ettirmek,
- Akademik atama ve yükseltmelerde bilimsel araştırma ve yayınlara ilişkin yanlış veya yanıltıcı beyanda bulunmak,

İNTİHAL POLİTİKASI

İntihal (aşırma) kasti olup olmaması önemsenmeksizin, bir etik ihlalidir. Bu sebeple yayın politikaları gereği Logos Yayıncılık tüm dergilerinde, yayınlanacak olan bütün çalışmalar için, intihal denetimini zorunlu kılar.

Dergilerimize yapılan tüm başvurularda kör hakem değerlendirmesini tamamlayan çalışmalar, Turnitin veya iThenticate yazılımları aracılığıyla tarafımızdan değerlendirmeye alınır.

Yayın Kurulu, dergiye gönderilen çalışmalarla ilgili aşırma, atıf manipülasyonu ve veri sahteciliği iddia ve şüpheleri karşısında COPE kurallarına uygun olarak hareket edebilmektedir.

TELİF HAKKI DEVRİ

Kişiler çalışmalarını gönderirken, çalışmanın kısmen veya tamamen, herhangi başka bir platformda daha önce yayınlanmadığı, yayın için değerlendirmede bulunmadığını beyan etmekle yükümlüdür. Aksi bir durumla karşılaşıldığında ilgili yaptırımlar uyarınca yazar durumdan sorumlu tutulacaktır.

Yazarlar çalışmalarının telif hakkından feragat etmeyi kabul ederek, değerlendirme için gönderimle birlikte çalışmalarının telif hakkını İzmir Dr. Behçet Uz Çocuk Hastanesi'ne devretmek zorundadır. Bu devir, yazının yayına kabulü ile bağlayıcı hale gelir. Basılan materyalin hiçbir kısmı yayınevinin yazılı izni olmadıkça bir başka yerde kullanılamaz.

Yazarların telif hakkı dışında kalan bütün tescil edilmemiş hakları, çalışmayı satmamak koşulu ile, kendi amaçları için çoğaltma hakkı, yazarın kendi kitap ve diğer akademik çalışmalarında, kaynak göstermesi koşuluyla, çalışmanın tümü ya da bir bölümünü kullanma hakkı, çalışma künyesini belirtmek koşuluyla kişisel web sitelerinde veya üniversitesinin açık arşivinde bulundurma hakkı gibi hakları saklıdır.

Dergimize çalışma gönderecek yazarlar, "Telif Hakkı Devir Formu" belgesini doldurmalıdır. Yazar(lar) doldurdukları formu ıslak imza ile imzalamalıdır. İmzalanan form taranarak sistem üzerinden çalışma gönderim adımlarında ek dosya yükleme seçeneği ile yüklenmelidir.

ÇIKAR ÇATIŞMASI

Ekonomik veya kişisel fayda sağlanan durumlar çıkar çatışmasını meydana getirir. Bilimsel sürecin ve yayınlanan makalelerin güvenilirliği, bilimsel çalışmanın planlanması, uygulanması, yazılması, değerlendirilmesi, düzenlenmesi ve yayınlanması sırasında çıkar çatışmalarının objektif bir şekilde ele alınmasıyla doğrudan ilişkilidir.

Makaleler hakkında son kararı veren bu editörlerin de karar verecekleri konulardan hiçbiri ile kişisel, profesyonel veya finansal bağlarının olmaması gerekir. Kişiler makalelerin etik ilkeler çerçevesinde değerlendirilebilmesi ve bağımsız bir süreç yürütülebilmesi için olası çıkar çatışmalarından yayın kurulunu bilgilendirmelidir.

Yayın kurulumuz bütün bu durumları göz önünde bulundurarak değerlendirme sürecinin tarafsız bir şekilde yürütülebilmesi için özverili bir şekilde çalışmaktadır.

Daha detaylı bilgi almak ve çıkar beyan etmek için web sayfamızı, çıkar çatışması formunu ve linki inceleyebilirsiniz.

KÖR HAKEMLİK VE DEĞERLENDİRME SÜRECİ

İzmir Dr. Behçet Uz Çocuk Hastanesi Dergisine gönderilen tüm çalışmalar çift-kör hakem değerlendirmesine tabi tutulmaktadır. Gönderilecek her çalışmayı, alanında uzman, en az iki hakem değerlendirir. Makalelerin hızlı bir şekilde değerlendirilebilmesi için editörler tarafından her türlü çaba gösterilir. Bütün makalelerin değerlendirme süreçlerinde son karar yetkisi editördedir. Değerlendirme sürecine ait alt başlıklar aşağıda verilmiştir. Detaylı bilgi için web sayfamızı ziyaret edebilirsiniz.

İlk Değerlendirme

Ön Değerlendirme Süreci

Hakem Değerlendirme Süreci

Hakem Raporları

İstatistik İnceleme

Yayın Basım Süreci

YAZARLAR İÇİN KONTROL LİSTESİ

- Çalışmanın içinde yazar adı, kurum bilgisi, etik kuruluna dair teşekkür yazısı vb olmadığından emin olunuz. Çalışmanızın hakem değerlendirmesinde "blind review" ilkesince tarafsız bir şekilde ele alınabilmesi açısından bu önemlidir.
- Çalışmanızın konu bakımından yeterli ve uygun bulunması durumunda intihal denetimine alınacağını unutmamalı ve çalışmayı hazırlarken intihal kapsamına girecek alıntılar yapmaktan kaçınmalısınız.
- Makaleniz; tez, bildiri özeti, poster vb bir çalışmadan üretilmişse, bunu tarihini belirterek dip not olarak verdiğinizden emin olun.
- Çalışmanızın telif hakkı devir formunu sisteme yüklemeden bir sonraki aşamaya geçemeyeceğiniz için lütfen formu doldurun ve sisteme yükleyin.
- Çalışmanız size revizyon için geri geldiğinde kontrolünüzü yaptıktan sonra, çalışmanızın başlık ve özet kısmında değişiklik olmuş ise, makale adımlarında bu içeriği güncelleyiniz.
- Çalışmanızın yayınlanması için yayınevi tarafından size gelen son bilgilendirmede çalışmanızı dikkatlice kontrol ettiğinizden emin olmanız gerekmektedir. Çalışma yayınlandıktan sonra üzerinde herhangi bir değişiklik yapmak mümkün olmayacaktır.

MAKALE HAZIRLAMA

Yazılar çift aralıklı, 12 punto ve sola hizalanmış olarak, Times New Roman karakteri kullanılarak yazılmalıdır. Sayfa kenarlarında 2,5 cm boşluk bırakılmalıdır. Sayfa numaraları her sayfanın sağ üst köşesine yerleştirilmelidir. Yazıların şekli ve bölümlerine ilişkin olarak "Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication-Updated February 2006" (http://www.icmje.org)'da belirtilen kurallar geçerlidir.

Araştırma yazıları en fazla 30 sayfa, olgu sunumları ise en fazla 15 sayfa olmalıdır. Yazılar Word dosyası olarak (.doc) formatında, resim ve fotoğraflar (.jpg) formatında gönderilmelidir. Yazıda aşağıdaki bölümler bulunmalıdır.

a. Başlık sayfası: Yazının başlığı (Türkçe-İngilizce), yazarların adları, akademik ünvanları, çalıştıkları kurum(lar), yazışmaların yapılacağı yazarın adı, adresi, e-posta adresini içermelidir. Bu bilgiler on-line sisteme girilir. Yüklenen word dosyasının içine koyulmaz.

b. Özet ve anahtar sözcükler: Türkçe makaleler İngilizce özet, İngilizce makaleler Türkçe özet içermelidir. Özet 250 kelimeyi aşmamalıdır. Kendi içinde amaç, yöntemler, sonuçlar ve yorumu içerecek şekilde oluşturulmalı, bu yapılandırma ayrı başlıklar altında olmamalıdır. Olgu sunumlarında giriş, olgu/olgular ve yorum bulunmalıdır. Özette kısaltma kullanılmamalıdır. Türkçe ve İngilizce (Index Medicus MeSH'e uygun olarak seçilmiş) en fazla beş adet anahtar sözcük kullanılmalıdır. Bu bilgiler on-line sisteme girilir. Yüklenen word dosyasının içine koyulmaz.

c. Ana metin: Araştırma yazılarında giriş, gereç ve yöntem, sonuçlar, tartışma ve kaynaklar bölümleri olmalıdır. Olgu sunumlarında giriş, olgu/olgular, tartışma ve kaynaklar bölümleri yer almalıdır. Tablolar ve resim alt yazıları kaynaklardan sonra gelmelidir. Bu bölümde yazar ve kurum adı belirten ifade bulunmamasına dikkat edilmelidir. Yazı daha önce bilimsel bir toplantıda sunulmuş ise toplantı adı, tarihi ve yeri belirtilerek bu bölümün sonunda ayrıca yazılmalıdır.

d. Kaynaklar: Kaynaklar metinde kullanım sırasına göre numaralandırılmalı, numaraları metinde cümlenin sonunda veya yazar adı geçmişse isimden hemen sonra parantez içinde belirtilmelidir. Dergilerin adları Index Medicus'da kullanılan biçimde kısaltılmalıdır. Yazar sayısı altıdan fazla ise, ilk altı isimden sonra "ve ark. (et al.)" yazılmalıdır. Yayımlanmak üzere kabul edilmiş, ancak baskıda olan yazılar, "baskıda" ibaresi kullanılarak kaynaklarda gösterilebilir.

Örnekler:

Dergi yazısı:

Ferrari A, Casanova M, Bisogno G, Cecchetto G, Meazza C, Gandola L, et al. Malignant vascular tumors in children and adolescents: a report from the Italian and German Soft Tissue Sarcoma Cooperative Group. Med Pediatr Oncol. 2002;39:109-114.

Özet:

Heidenreich A, Olbert P, Becker T, Hofmann R. Microsurgical testicular denervation in patients with chronic testicular pain. Eur Urol. 2001;39 (suppl 5):126 (abstr.)

Kitap:

Sadler TW. Langman's Medical Embryology, 5th ed., William and Wilkins, Baltimore, 1985. p.224-226.

Kitap bölümü:

Folkman J: Tumor angiogenesis. In Bast Jr RC, Kufe DW, Polock RE,Weichselbaum RR, Holland JF, Frei E (eds). Cancer Medicine. 5th ed. London, B.C. Decker Inc.; 2000. p.132-152.

İnternet üzerinde yayımlanmış makale:

Abood S. Quality improvement initiative in nursing homes: the ANA acts in advisory role. Am J Nurs (serial on the Internet). 2002 Jun (cited 2002 Aug 12); 102 (6): (about 3 p.). Available from: http://www.nap.edu/books/0309074029/html/.

e. Tablolar: Tablolar ana metin içinde kaynaklardan sonra gelmeli, her tablo ayrı bir sayfada olacak şekilde ve çift aralıklı olarak yazılmalıdır. Makale içindeki geçiş sırasına göre Arap rakamlarıyla numaralandırılmalı, metinde parantez içinde gösterilmeli, kısa-öz bir başlık taşımalıdır. Tablo numarası ve başlığı tablonun üstünde, tablo açıklamaları ve kısaltmalar altta yer almalıdır.

f. Resimler ve şekiller: Metin içinde kullanım sıralarına göre Arap rakamlarıyla numaralandırılmalı ve metinde parantez içinde gösterilmelidir. Dijital kamera ile çekilmiş fotoğraflar en az 300 dpi çözünürlükte, 1280x960 piksel boyutunda çekilmiş , jpg veya tiff formatlarında kaydedilmiş olmalıdır. Zorunlu olmadıkça resim üzerinde yazı bulunmamalıdır. Her resim ve şekil ayrı bir belge olarak hazırlanmalı, gönderme formuna uygun olarak yazının ekleri olarak gönderilmelidir.

g. Resim ve şekil alt yazıları: Alt yazılar ana metinde kaynaklardan sonra gelmeli, kısa ve öz bir şekilde yazılmalı, kullanılan boya/yöntem ve orijinal büyütme bildirilmelidir. Şekillerde kullanılan semboller ve harfler tanımlanmalıdır.

h. Teşekkür bölümü: Bu bölüm yazının sonunda, kaynaklardan önce yer almalıdır.

i. Düzeltme istenen makalelerde, hakemin ya da hakemlerin getirdiği eleştirilere tek tek yanıt verilmelidir.

j. Yazı yayımlanmak üzere kabul edildiğinde "Telif hakkı formu" nun web sitesinden alınması, doldurulması, imzalanması ve faks ile "Logos Yayıncılık Şirketi" ne yollanması gerekmektedir.

Kaynakça

Kaynaklar Vancouver stiline uygun yazılmalıdır (bk. https://www.ncbi.nlm.nih.gov/books/NBK7256/). Kaynakların doğruluğundan yazarlar sorumludur. Kaynak yazımında aşağıda belirtilen kurallara dikkat edilmelidir.

Metin içinde kaynak gösterme

Metin içinde kaynaklar, kullanım sırasına numaralandırılmalı ve referans listesi bu sıraya göre sunulmalıdır. Kaynak numarası ilgili yere, parantez içinde ve üst simge olarak belirtilmelidir. Birden fazla kaynak kullanıldıysa kaynaklar arasına virgül konulmalıdır.

Metin içi örnek:

Özellikle de malnütrisyonun tanınıp önlenmesinde, hastane yatış süresinin ve maliyetin azaltılmasında hemşireler tarafından verilen bakım önemlidir (9). Bu nedenle hemşirelerin nütrüsyon alanında yeterli bilgi, donanım ve beceriye sahip olması beklenmektedir (3,10,11).

Duerksen ve ark. (14) Kanadalı hemşirelerin, yatan hastaların nütrisyon sorunlarıyla ilgili bilgi ve yaklaşımlarını değerlendirmişlerdir. Çalışmada hemşirelerin yetersiz ve etkin nütrisyonel değerlendirme yapamadıklarını, bunun nedeninin de yardımcı personel eksikliği, zaman yetersizliği ve döküman eksikliği olduğunu belirtmişlerdir.

Metin sonunda kaynak gösterme

Metin sonunda kaynaklar ayrı bir sayfada çift aralıklı olarak yazılmalıdır. Dergi adları makalenin yer aldığı indekse uygun olarak (örneğin: Index Medicus, Medline, Pubmed, Web of Science, TR Dizin, vb.) kısaltılmalı ve varsa DOI numaraları mutlaka eklenmelidir. Dergilerin kısaltmaları için NLM tarafından yayınlanan dergilerin listesine http://bit.ly/2IJkey3 adresinden ulaşılabilir. Dergi ismi bu listelerde yer almıyorsa tam olarak yazılmalıdır. Eğer kullandığınız kaynak için ilgili sitede Vancouver formatında kaynak gösterimi mevcut ise buradan kopya oluşturarak referans listesine eklemeniz önerilir. Metin içinde kaynak gösterimi ve yazımı aşağıda belirtilen örneklere göre yapılmalıdır:

Dergi:

Yazar sayısı 6 ve altında ise tüm yazarlar belirtilir.

Campbell MR, Fisher J, Anderson L, Kreppel E. Implementation of early exercise and progressive mobility: Steps to success. Crit Care Nurse. 2015;35(1):82-8. doi: 10.4037/ccn2015701.

Eğer yazar sayısı 6'dan fazla ise ilk üç yazar belirtilir.

Aiken LH, Sermeus W, Van den Heede K, Sloane MD, Busse R, McKee M, et al. Patient safety, satisfaction, and quality of hospital care: Cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. BMJ. 2012;344:e1717. doi: 10.1136/bmj.e1717.

Makalenin DOI numarası yok ise internet ulaşım adresi verilir.

Pokorny ME, Koldjeski D, Swanson M. Skin care intervention for patients having cardiac surgery. Am J Crit Care. 2003;12(3):535-44. Available from:

http://ajcc.aacnjournals.org/content/12/6/535.full.pdf+html?sid=f587c6d5-92a3-4971-8367-f18cd1cd63f0

Dergi eki (Supplement):

Ahrens T. Severe sepsis management: Are we doing enough? Crit Care Nurse. 2003;23(Suppl 5):2-15. Available from: http://ccn.aacnjournals.org/content/23/5/S2.full.pdf+html

Kitap:

Jarvis C. Physical Examination and Health Assessment. 3rd ed. Philadelphia: W.B. Saunders Company; 2000.

Editör bilgisi var ise:

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Ferrari A, Casanova M, Bisogno G, Cecchetto G, Meazza C, Gandola L, et al. Malignant vascular tumors in children and adolescents: a report from the Italian and German Soft Tissue Sarcoma Cooperative Group. Med Pediatr Oncol 2002;39:109-14.

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Sadler TW. Langman's Medical Embryology, 5th ed., William and Wilkins, Baltimore, 1985. p.224-26.

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Aiken LH, Sermeus W, Van den Heede K, Sloane MD, Busse R, McKee M, et al. Patient safety, satisfaction, and quality of hospital care: Cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. BMJ. 2012;344:e1717. doi: 10.1136/bmj.e1717.

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Pokorny ME, Koldjeski D, Swanson M. Skin care intervention for patients having cardiac surgery. Am J Crit Care. 2003;12(3):535-44. Available from: http://ajcc.aacnjournals.org/content/12/6/535.full.pdf+html?sid=f587c6d5-92a3-4971-8367-f18cd1cd63f0

Supplement:

Ahrens T. Severe sepsis management: Are we doing enough? Crit Care Nurse. 2003;23(Suppl 5):2-15. Available from: http://ccn.aacnjournals.org/content/23/5/S2.full.pdf+html

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SS1

IS SUICIDE AN INFLAMMATORY PROCESS? CRP BASED CASE-CONTROL STUDY

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Objectives: The number of adolescent suicide attempts and related deaths are increasing day by day. Although it presents a problem for general population, it is a more serious problem who has psychiatric disease. Previous studies have demonstrated the association between inflammation and psychiatric disease. From this point we planned to investigate the relationship between adolescent suicide attempts andas an inflammatory biomarker, C-Reactive Protein (CRP).

Methods: This study was designed as a case-control study. The study population was consisted of the patients who admitted to the pediatric emergency department between 01.03.2016-01.03.2019 with the patients with suicide attempt and healthy volunteers who admited to healthy child clinic for rutine examination with similar age and gender characteristics The groups were compared in terms of demographic, clinical features and serum CRP levels.

Results: A total of 239 patients, (108 cases and 131 controls) were included in the study. The control group consisted of 121 (92.4%) female and 10 (7.9%) male, while the case group consisted of 102 (94.4%) female and 6 (5.6%) male subjects (p=0.5). The mean age of the patient group was 15.1±2 years and the control group had a mean age of 15.7±1.3 years (p=0.1). In the case group 103 cases (95.4%) were found to be residents and 5 (4.6%) were immigrants. While in the control group 126 cases (96.1%) were residents and 5 (3.9%) were immigrants. It was observed that the case and control groups consisted of similar proporties in terms of demographic data. In the case group 74 children (68.5%) were diagnosed with psychiatric disorders by an child and adolescent psychiatry specialist. Of these, 35 (32.5%) were diagnosed with major depressive disorder (MD), 30 (27.7%) with impulse control disorder, 6 (5.5%) with generalized anxiety disorder and 3 cases (2.8%) were diagnosed differently. When the groups were evaluated in terms of the serum CRP levels which constitute the main construct of the study, the mean serum CRP levels of the control group was 1.5±1.5 mg/L and the mean serum CRP levels of the case group was 12.7±6.4 mg/L. (T=3.7 and P<0.01 (T test)). According to the reference values in the report of National Health And Nutrition Evaluation Survey-2005, serum CRP levels were found to be normal in 119 cases (90.8%) in the control group and high in 12 patients (9.2%) in the control group. In suicide group, 28 cases (25.9%) were normal and 80 cases (74.1%) were high in terms of serum CRP levels. So, the level of CRP in the suicide group was significantly higher than the control group (p <0.01). When the groups evaluated in terms of the presence of psychiatric disorders, it was found that, the mean of serum CRP levels in cases with psychiatric disorder was 14.3±4.2 and 9.7±2.7 in the group of the cases without psychiatric disorder. (T=1.4 and P=0.03) (T test).

Conclusion: The value of CRP, a strong inflammatory marker, was found to be higher in patients who attempted suicide compared to the healthy population and in patients with psychiatric disease to the patients who without psychiatric disease.

SS2

PROSPECTIVE ANALYSIS OF ACUTE PEDIATRIC HAND INJURIES DURING ONE YEAR

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Introduction: The aim of this study was to evaluate epidemiological evaluation of pediatric acute hand injuries frequently encountered in a tertiary university emergency department and to identify the associated risk factors.

Method: Out of 698 cases admitted to Ege University emergency department trauma unit Between March 2017 and March 2018, 129 acute hand and forearm injuries pertaining to children were included in the study. In addition to demographic information, mechanism, time, etiology and occupational injury status were determined. The injuries were evaluated according to the circadian rhythm during the day and the hours of intensification were determined. The injured structures were grouped according to anatomical regions and the cut structures were determined. The Modified Hand Injury Severity Score (MHISS) was used for injury severity.

Results: In this study, the mean age of 129 patients was 10.1 (0-18) years. While the mostly injured group by age was the group over 12 years (57, 44%) the second was observed in the group between 0-3 years (42, 32%). 19 students doing their vocational internships were injured (14%) and all were seen to be in their first 12 months. 26 (20%) cases were seen to have punched against the glass in the 12-year-old group, and 42 (32%) cases of fingertip crush injury were detected in the 0-7 age groups. Temporal injury intensity were seen to have increased between 12.00 and 19.00. The mean MHISS score was 41 (8-120).

Conclusion: Injury prevention measures need to be increased particularly for finger-tip injuries that are still common in preschool age. A special multidisciplinary approach should be provided to the patient in self-harm injuries frequently seen during adolescence. A specific injury severity assessment system is required for pediatric hand injuries, which are often simpler and easier to treat than adults. Education and increasing awareness are believed to be important steps in preventing pediatric hand injuries.

Keywords: Pediatric hand injury, Finger tip injury, Acute hand injury, Self-harm hand injury

SS3

PEDIATRİC PALLIATIVE CARE IN TURKEY: A SINGLE CENTER EXPERIENCE

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Objective: Pediatric palliative care is the highest level of care aimed at improving the quality of life for all children and families with life-threatening and threatening diseases. Etiology of pediatric palliative care in Turkey is unknown. The aim of this study is to examine the etiology in pediatric palliative care and to evaluate the needs.

Method: The study was planned as a retrospective study following the approval of Dr. Behçet Uz Children's Hospital local ethics committee. The obtained data was uploaded to the SPSS program and statistical analysis was done.

Results: The mean age of 97 cases included in the study was 5,2±4.6 (0,3-17) years, and 53,6% (n=48) of them were male. The most common diagnosis is cerebral palsy with 39,2% (n=38), followed by congenital metabolism disease with 20,6% (n=20) and primary muscle disease with 19,6% (n=19). Mechanical ventilator (MV) use was 19,6% (n=19), and percutaneous enterostomy (PEG) was 26,8% (n=26). When looking at the drugs used, the most commonly used drug is antibiotics with 70,1% and antiepileptic drugs with 56,7%, followed by 40,2% gastric preservatives, 35% analgesics and 20,6% smooth muscle relaxants (baclofen) drugs, respectively.

Conclusion: Many different diseases, especially neurometabolic diseases, can lead to palliative care needs. However, larger and multicentre studies are needed because the palliative care clinic is newly established, oncological patients are not accepted and the number of patients is insufficient.

Keywords: Child, Etiology, Pediatric palliative care

SS4

EXAMINATION OF THE CASES WHO APPLIED TO THE PEDIATRIC EMERGENCY DEPARTMENT DUE TO FOREİGN BODY INGESTION

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Introduction: Foreign body (FB) that are taken into gastrointestinal system (GİS) may lead to serious mortality and morbidity [(1)]. Ingestion of FBs in children is often caused by accident, whereas some deliberate cases are seen [(2)]. 80-90% of FB in the gastrointestinal tract are excreted from the body without any complications. 10-20% endoscopically removed and 1% need surgical operation [(3)].

Method: Foreign body ingestion cases that applied to the pediatric emergency department in our hospital between 1st of January and 31st of December 2019.

Statistical analysis: Data were analyzed by using SPSS version 22. P values below .05 were considered statistically significant. Categorical variables were evaluated in percent and frequency. Descriptive statistics and constant variables were given in average±standard deviation. T test, chi square and Fisher exact test were used dependent on their availability in order to compare frequencies.

Results: 154 patients were included in the study. 87 (56,5%) of the patients were males and the average was 52,4±43,4 months. Three patients had other systemic disease, one of them cerebral palsy, the other two with esophageal stricture. Only 21 (13,6%) of the patients were symptomatic and the most frequent of the symptoms was the dysphagia. The most common FB was found to be blunt objects (money, toy piece, cap, jewelry, button) in 107 (69.5%) cases. Coins accounted for most of the objects ingested. When the radiographies of the cases were evaluated, it was determined that 75 (58,7%) of the objects were opaque. In 74,7% (65) of the cases that were located it was seen that the FB had passed the esophagogastric junction and in 25,3% (22) of them, it has impact at esophagus and pharynx. It was seen that 13 (8,4%) of the cases were treated endoscopically, in 9 (5,8%) of them, the object was taken out with magill forceps and the remaining 132 (89,6%) cases were follow up for throw it out spontaneously. The need for intervention was significantly higher in FBs not exceeding the gastro-esophageal junction. None of the patients needed surgical operation and no complications were observed. The mean age was found to be significantly higher in patients who applied due to ingesting sharp object and battaries than blunt object .

Conclusion: As a result; although most of the FB cases escaping to the digestive system do not require urgent intervention, they are forensic cases that must be recognized correctly

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SS6

IN WHICH CASES OF BETA BLOCKER POISONING IN CHILDHOOD, HYPOGLYCEMIA DEVELOPS MORE EASILY?

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Objective: Poisoning is one of the preventable causes of death in childhood. In the US, approximately 1.5 million children are admitted to emergency services each year due to poisoning. And also the largest component of this group is drugs and especially the drugs affecting cardiovascular system. In this group one of the most mortal one is beta blockers (BBs). In BB poisonings bradycardia, hypotension, mental status change, seizure, hypoglycemia, and bronchospasm may occur. In this current study we want to know which factors can be facilitate picking out hypoglycaemia in BB intoxication cases.
Methods: This study was conducted between 01.01.2018-31.12.2019 in a pediatric poisoning center in pediatric emergency clinic of a tertiary university hospital. This study is designed as observational, cross-sectional and retrospective. Cases aged 0-18 years who admitted to the emergency department with beta-blocker poisoning were included in the study. The data of the cases were taken from the hospital automation system. After examining the characteristics of the cases such as age, gender, and the drug they were exposed to, HR, SBP and BGL measurements of the cases were noted. The data were analyzed in SPSS 22.0 package program. Mean, standard deviation, minimum, maximum values were calculated. Chi square test, T test, Pearson Correlation and logistic regression model analyzes were performed. Situations where alpha value was less than 0.05 were considered as significant.
Results: A total of 136 cases, 83 of whom were girls (61%), were included in the study. The ages of the cases varied between 2 and 17. (Mean±SD 11.6±5.7 years) BB drugs to which patients were exposed were propronolol (36%), metoprolol (28.7%), betaxolol (9.6%), bisoprolol (8.1%), asebutolol (5.9%) and sotolol (2.9%) respectevely. mean of the SBP values of the cases was 86.2±12 mmHg (min-max 57-140 mmHg), the mean of the HR values was 72.9±12.2 beats per minute (min-max 56-110) and the mean of the BGL was 104.4±42.8 mg/dl (min-max 42-200 mg/dl). When the relationship between HR, SBP and BGL of the cases was examined, it was found that there was a poor positive correlation between BGL and HR ($R=0.32$, $P<0.01$). No linear correlation was detected between BGL and SBP and BGL and Toxic dose percentage ($R=0.23$, $P=0.06$ and $R=0.16$, $P=0.05$). A very strong negative correlation was found between the percentage of toxic dose and SBP, and between the toxic dose percentage and HR ($R=-0.90$, $P<0.01$ and $R=-0.76$, $P=0.04$). There was a weak positive correlation between HR and SBP ($R=0.42$, $P=0.09$).
Conclusion: The purpose of our study was to determine the predictable factors for the development of hypoglycemia in patients with BB intoxication. As a result, we found that there is a correlation between the decrease of HR and the decrease of BGL. In addition, it was observed that the age of younger, the gender was female and the high dose of the drug taken facilitated the development of hypoglycemia.

SS7

DİYABETİK KETOASİDOZLU VE KETOZLU ÇOCUKLARDA ELEKTROKARDİYOGRAFİK DEĞİŞİKLİKLER

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Objective: Diyabetik ketoasidoz (DKA), T1DM'un mortal akut komplikasyonudur. DKA'nın mortalite oranı %2-10 olarak bilinmektedir. Özellikle, atak sırasında oluşan ritm bozuklukları, akut miyokard infarktüsü ve kardiyak arrest gibi komplikasyonlar mortaliteye nedenidir. Amacımız, DKA'da oluşacak QTc uzaması, ST-T değişikliği, bradikardi ve diğer değişikliklerin saptanması, buna neden olabilecek elektrolit imbalansı, ketozis ve asidozla olan ilişkisinin değerlendirilmektir.

Yöntem: S.B.Ü Dr. Behçet Uz Çocuk Hastalıkları ve Cerrahisi Eğitim ve Araştırma Hastanesi, Acil Servis kliniğine DKA sebebiyle başvuran 0-18 yaş arasındaki çocuklar prospektif olarak çalışmaya alındı. Demografik özellikler, DKA dereceleri, laboratuvar bulguları, kan gazı analizleri değerlendirildi. Başvuru sırasında ve tedavi sonrasında 12 derivasyonlu EKG çekildi. EKG'lerde sinüs ritmi dışında tüm ritmler patolojik kabul edildi. Çekilen EKG'lerde RR mesafesi, QRS süresi, QT aralığı, ve Tp-e aralığı ölçüldü.

Bulgular: 30 hasta çalışmaya dahil edildi. Olguların medyan yaşı 10.0 yıl (10 ay-17) olup Kız/Erkek oranı 1.14/1 idi. Hastaların %30'unda hafif DKA, %23.3'ünde orta DKA, %26.7'sinde ağır DKA ve %20'sinde ketozis saptandı. DKA sırasında bakılan RR süresinin tedavi sonrasındaki RR süresine göre istatistiksel olarak anlamlı derecede daha kısa olduğu görüldü ($p<0.001$). Hastaların %30'unda QTc süresinin >440 msn olduğu ve atak sırasında bakılan QTc süresinin tedavi sonrasındaki QTc süresine göre daha uzun olduğu saptandı ($p<0.001$). Hastaların %23.3'ünde başvuru sırasında QTd değerlerinin uzun olduğu; tedavi sonrasında %10'unda QTd uzunluğunun devam ettiği görüldü. DKA sırasındaki QTd süresinin tedavi sonrasındaki QTd süresine göre daha uzun olduğu saptandı ($p=0.008$).

Sonuç: DKA, T1DM'lu çocuklarda morbidite ve mortalite nedenidir.DKA'da ortaya çıkan, ventriküler aritmi riskini artırarak ölüm riskini arttıran EKG değişikliklerinden biri de QTc süresinde uzama ve QTdispersiyonundaki artıştır. Çalışmamızda vaka sayısı az olmakla birlikte DKA sırasında EKG'de QTc ve QTd sürelerinde uzama saptanmıştır. DKA sırasında EKG'deki değişiklikler randomize kontrollü çalışmalarla desteklenmelidir. Bu nedenle, EKG çekimi ilk ve önemli tetkiklerdendir.

KeyWords: Diyabetik ketoasidoz, QTc süresi, Qtdispersiyonu

SS8

EVALUATION OF CONCUSSION AWARENESS AND KNOWLEDGE LEVEL OF PEDIATRIC RESIDENTS IN A CHILDREN'S HOSPITAL

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Objective: Concussion is a brain injury related with the complex pathophysiological process after exposure to biomechanical forces. It is commonly seen in adolescents and spor-related trauma. Concussion becomes a public health problem in USA with recently increased rates. But we have limited data about pediatric concussion in our country. This study aimed to evaluate the pediatric concussion awareness and knowledge level of pediatric residents in a children's hospital.

Method: A survey prepared by Google Forms sent to 76 pediatric residents who have been worked in Dr. Behçet Uz Child Disease and Pediatric Surgery Training and Research Hospital. Survey was consisted of 3 parts: first part included demographics, second part included 7 questions about concussion awareness and third part included 25 questions about concussion knowledge. There were one question of definition, 18 questions of symptoms and 6 questions of diagnosis and treatment.

Results: 69.6% (n=55) of survey was responded. We observed that 38.2% of participants participated a presentation about concussion, 47.3% of participants read about concussion in news or posts and 5.5% of participants had a relative who was diagnosed as concussion before. The overall knowledge rate of symptoms was 63.2%. Among the knowledge rate about symptoms, the highest and lowest were memory problems with 83.6% and convulsion with 32.7% respectively. 76.4% of participants declared that there is no brain injury in radiological imagining. 52.7% of participants were ignorant of local concussion guideline. 89.1 of participants answered true to treatment consisted of physical and cognitive rest. Discharge information was reported 63.6% verbal and 34.5% both written and verbal information.

Conclusion: We observed that the awareness and knowledge level of pediatric residents in a children's hospital is low. Thus it requires to make concussion database of our country, to educate about concussion foremost healthcare workers but also parents, coaches and teachers that face with these patients, to attempt for creating public awareness and to develop local guidelines of diagnosis and treatment.

SS9

EPIDEMIOLOGICAL EVALUATION OF CHILDREN WITH BURN IN EMERGENCY SERVICE

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Introduction: Burn is a common environmental health problem in our country similar to the world. Approximately 1.2 million patients with burn are treated in USA per year. Burns are one of the most common causes of injury related death under ten years old. They are more frequent and serious in children than adults due to lack of avoidance ability, not realizing the danger, not being able to move away from the scene on their own and susceptibility to risky behaviors by adolescents. We aimed to evaluate epidemiological features of major burns in present study.

Methods: The patients admitted to Van Training and Research Hospital Emergency Department between January 2016 and July 2018 with burn were retrospectively evaluated. The mechanisms, degrees of burns, laboratory parameters (serum electrolytes, BUN, creatinine, coagulation parameters) length of stay in hospital, discharge types were evaluated. Burn surface area was calculated by 'Wallace's Nine Rules'. The patients were divided into groups by percentage of burn surface area and degree of burn; after then groups are compared for demographical data's, clinical and laboratory parameters.

Results: A total number of 135 cases were included to the study, 54.8% were men and 74.8% were under 5 years old. The median age of patients was four. Fifty percent of patients had second degree, the other 50% had third degree burns. The median burn surface area was 9%. Legs were the most common effected body area (Figure 1). Scald burn was the most common mechanism of injury (85%). Flame burn was the second most common cause of burn (9%). The median length of stay in hospital was 5 days. Surgical treatment was applied in 23% of the cases, and death was observed in one patient with flame burn. When the patients evaluated by degree and percentage of burn surface area, there was no significant for coagulation parameters, electrolyte and creatinine levels among groups (p>0.05).

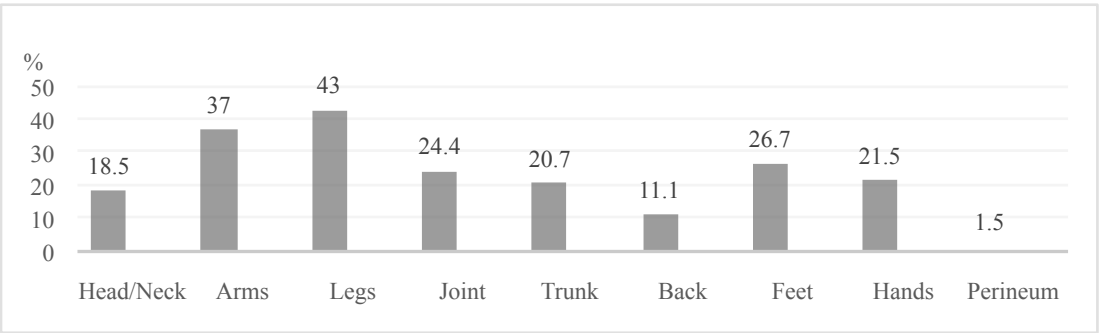

Figure 1. Localization of burn area.

Conclusion: The characteristics of the burn varies by the causes. The most affected age is under 4, the most common burn type is scalding. It is important to know the regional common causes of burn with the aim of taking appropriate precautions. Due to the widespread use of tandoor in our country, especially in the Eastern Anatolia Region, flame burns seem to be an important environmental problem. The parents, careers, teachers and the society must be informed about precautions.

SS10

EVALUATION OF DEEP NECK SPACE INFECTIONS IN CHILDREN: A SINGLE-CENTER EXPERIENCE

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Background: Deep neck space infections (DNSIs) are serious clinical conditions that involve potential spaces of the fascial planes of the neck. Complications in DNIs can occur due to delay in treatment and can result in sepsis, death or prolonged hospitalization. The aim of this study is to evaluate the clinical findings, predisposing factors, causative agents and management of DNSIs in children.

Methods: The data of patients with DNSIs were examined retrospectively at Marmara University Pendik Training and Research Hospital, Department of Pediatric Infectious Diseases between October 2017 and December 2019.

Results: A total of 42 patients presented with DNSIs during the study period, and there were 15 (36%) females and 27 (64%) males. The mean age was 7 years (range, 1 to 18 years). The most common symptoms at presentation were neck swelling in 35 (83%) patients and fever in 21 (50%) patients. The most common physical examination findings were cervical lymphadenopathy in 24 patients (57%), tonsillopharyngitis in 9 (21%), patients , tooth decay in 17 (40%) patients. Regarding etiology of DNSIs, odontogenic infections in the form of dental caries were the most common etiological factor (40%). The submandibular space was the most affected region in 34 patients (80%). Two patients (5%) had peritonsillar, two (5%) had parapharyngeal and four (10%) had retropharyngeal infection. Surgical drainage was performed in 26 patients (62.5%). At least one pathogen was identified in 23 of 26 (88%) patients performed surgical drainage. Streptococcus viridans was the most common organism isolated in 8 (36%) patients, followed by Streptococcus pyogenes in three patients (13.5%). The mean values of white blood cell counts, hemoglobin, aspartate aminotranspherase, alanin aminotranspherase, and lactate dehydrogenase were 12805 /mm^3 , 11,1g/dL, 36,9 IU/L, 24,5 IU/L and 252 IU/L, respectively. The mean length of hospitalization was 10.2 (1–28) days. The mean duration of antibiotic treatment was 14.8 (7-28) days. Most frequently, intravenous ampicillin-sulbactam alone or in combination with clindamycin was administrated to the patients. All patients were discharged without any complication and sequelae.

Conclusion: Deep neck space infections are severe infections occurring in the potential cervical fascial planes of the head and neck and continue to cause lethal complications. Rapid diagnosis and treatment of DNSIs may improve prognosis in children. Educating the population about orodental health and the early removal of an affected tooth or teeth is essential to reduce these challenging infections.

SS11

EFFECTS OF CAFFEINE ON SPLANCHNIC OXYGENATION IN PRETERM INFANTS

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Objective: The aim of this study is to assess the effects of administering 20 mg/kg loading dose of caffeine citrate intravenously on splanchnic oxygenation in preterm infants.

Methods: This prospective, single-center study was conducted at Harran University School of Medicine, Sanliurfa, Turkey, between October 2017 and August 2018. Infants with a gestational age (GA) of <34 weeks who were administered a loading dose of 20 mg/kg caffeine citrate by intravenous infusion over a period of 30 min within 48 h after birth were eligible for inclusion in this study. Caffeine was administered prophylactically in the following conditions: 1) GA<30 weeks, 2) birth weight<1500 g, 3) noninvasive ventilation from birth, and 4) planned extubation from the mechanical ventilation. The therapeutic indication for caffeine administration was to treat apnea of prematurity. A mean of 20-min period of regional splanchnic oxygen saturation ($rsSO_2$) measurements was determined for each infant before caffeine citrate loading (TP); immediately after administering the loading (T0) dose; and 1 h (T1), 2 h (T2), 3 h (T3), 4 h (T4), and 6 h (T6) after dose completion. The splanchnic fractional tissue oxygen extraction rate (sFTOE) was calculated using following formula: $sFTOE= (SpO_2 - rsSO_2)/SpO_2$. Physiological parameters including heart rate (HR), SpO2, and mean arterial blood pleasure (MABP) were recorded simultaneously with $rsSO_2$ measurements before and after caffeine loading dose. $rsSO_2$, sFTOE, HR, SpO_2, and MABP values which were measured after administering caffeine at T0, T1, T2, T3, T4, and T6 were compared with pre-dose values.

Results: A total of 41 preterm infants were included in the study with a mean GA of 29.2±1.6 weeks, having a range of 27-32 weeks, and birth weight of 1315±257 g, having a range of 640–2000 g. The mean age when the study was conducted was 32.2±10.8 h. The mean $rsSO_2$ was %63.1±14.5 at TP, %57.5±20.3 at T0, %55.1±19.3 T1, %55.2±20.5 at T2, %58.0±19.9 at T3, %60.0±17.9 at T4, %60.8±17.6 at T6. The mean sFTOE was 0.35±0.15 at TP, 0.41±0.21 at T0, 0. 43±0.20 T1, 0. 43±0.20 at T2, 0.40±0.21 at T3, 0.38±0.19 at T4, 0.37±0.18 at T6. Linear mixed model analysis revealed a significant change in $rsSO_2$ and sFTOE over time (p=0.02 and p=0.01, respectively). Bonferroni post hoc comparisons revealed an absolute reduction in $rsSO_2$ with a mean decrease of 5.6% (95% CI 0.3%-11.0%; p=0.03) at T0; 8.0% (95% CI 1.6%–14.4%; p=0.006) at T1; and 7.9% (95% CI 1.1%-14.7%; p=0.01) at T2 compared with $rsSO_2$ values before caffeine infusion. The mean difference in sFTOE was an absolute increase of 0.06 (95% CI -0.0004-0.11; p=0.05) at T0; 0.08 (95% CI 0.01-0.14; p=0.007) at T1; and 0.08 (95% CI 0.01-0.15; p=0.01) at T2 when compared with sFTOE values prior to caffeine infusion. Significant changes of $rsSO_2$ and sFTOE were maximal at T1 post-caffeine dose (p=0.006 and p=0.007, respectively). At T3, T4, and T6, differences were not significant (for T3, p=0.30 and p=0.27, respectively; for T4, p>0.99 and p>0.99, respectively; and for T6; p>0.99 and p>0.99, respectively) although $rsSO_2$ values decreased and sFTOE values increased compared with baseline values.

Discussion: To the best of our knowledge, none had investigated the effect of caffeine on splanchnic oxygenation. Caffeine is known to inhibit adenosine-induced vasodilatation, therefore, caffeine may affect intestinal perfusion. Two studies revealed that a 50 mg/kg single loading dose of caffeine citrate, intravenously or orally, reduced intestinal blood flow for 1 to 3 h. In contrast to our study, Soraisham et al showed that a loading dose of 20 mg/kg caffeine citrate administered intravenously over 30 min did not significantly decrease intestinal blood flow. Similar to our study, Abdel Wahed et al reported that an intravenous loading dose of 20 mg/kg of caffeine citrate administered over a 30 min caused significant reduction intestinal blood flow for at least 2 h with return to pre-caffeine levels at 6 h.

Conclusion: A single intravenous 20 mg/kg loading dose of caffeine citrate administered at 30 min period reduces splanchnic oxygenation and increases splanchnic oxygen extraction for at least 2 h with partial recovery to pre-dose levels at 3 h post-dose.

SS12

EVALUATION OF HOSPITAL INFECTIONS IN PEDIATRIC PALYATIVE CARE UNIT

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Purpose: Pediatric palliative care units have become increasingly important in recent years as a result of the increase in the number of children with chronic diseases and the increasing interest of healthcare workers in the care of these patients. However, the underlying diseases, long hospitalization and invasive interventions increase the risk of health-related infections. In this study, we aimed to evaluate the hospital infections in the first year of hospitalized patients in the newly opened Palliative Care Unit at Behçet Uz Children's Diseases and Surgery Training and Research Hospital.

Method: The data of 146 patients hospitalized in our palliative care unit between December 2018 - December 2019 were analyzed retrospectively. Diagnosis of health-related infections was determined according to the Ministry of Health National Health Service Related Infections Surveillance Guide definitions [(1).] Data of all patients were obtained from the hospital information management system and infection control committee patient follow-up forms.

Results: Data of 146 patients were collected during the study period. The number of patients with nosocomial infections was 19, infection rate was 13.01% and infection density was 8.58 ‰. The total number of in patient days was 2212. The median age of the patients was 5.2 years (9 months-16 years). The most common infection was pneumonia (11 patients, 57.8%). Other infections were conjunctivitis in 3 patients, soft tissue infection in 1 patient, gastroenteritis in 1 patient. Central venous catheter related blood flow infection was observed in one patient. Catheter day was 235 days and infection rate was found to be 4.26 per thousand catheter days. Ventilator-associated pneumonia was observed in one patient. Ventilator day 559 and infection rate was 1.79 per thousand ventilator days. One patient had superficial surgical site infection.

Conclusion: In order to control hospital infections, infection factors should be monitored regularly and infection control strategies should be developed according to surveillance results. Although active surveillance monitoring is not recommended in palliative care units, we think that in addition to effective surveillance continuity, bundle applications should be established and employees should be trained and supervised.

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SS13

MORTALITY RELATED RISK FACTORS FOR EXTENDED SPECTRUM B-LACTAMASE POSITIVE *ESCHERICHIA COLI* BLOODSTREAM INFECTIONS

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Aim: Treatment of Infections caused by microorganisms producing extended spectrum beta-lactamase (ESBL) is difficult and the risk of mortality is very high. İn this study we aimed to investigate mortality related risk factors for hospital related ESBL + *E. coli* bloodstream infection.

Metods: The patients hospitalized in Dr. Behcet Uz Children's Hospital between 2007 and 2012 were included in this study. For this, 25 patients with ESBL + *E. coli* and 45 control patients with ESBL-*E. coli* in blood cultures were evaluated. The patients were compared in terms of demographic and clinical features and the study was designed as a retrospective case control study.

Results: In patients included in the study, the use of third-generation Cephalosporin and long-term, especially longer than 10-day, antibiotic use, intensive care hospitalization were determined as risk factors for ESBL + *E. coli* bacteremia. When the mortality rates were examined, the one month mortality rate was 20% in ESBL *E. coli* bacteremia group and 17.8% in the group with ESBL-*E. coli* bacteremia. There was no statistically significant difference between gender, age and mortality in the both groups. When evaluated in terms of underlying diseases and important clinical features in the group with ESBL + *E. coli* bacteremia, there was no a statistically significant difference between underlying congenital heart disease, hematological malignancy, prematurity, immunosuppressive treatment,being neutropenic, diet (TPN, enteral, oral) and mortality. However, there was a statistically significant difference between neurometabolic disease and mortality (p=0.03). When the invasive procedures were evaluated, there was no relationship between mechanical ventilation, nasogastric tube insertion, central venous catheter application, blood transfusion, prolonged hospitalization and mortality. However, a statistically significant relationship was found between urinary catheter and mortality rates (p=0.03).

Conclusion: Infections caused by resistant microorganisms are high in mortality and increase the cost of treatment by extending the length of hospital stay. Due to the treatment options of infections with these microorganisms are limited and most of these drugs require hospitalization, antibiotic use policies should be given importance for the proper use of antibiotics.

Keywords: Bacteremia, Escherichia coli, mortality, extended-spectrum β-lactamase

SS14

PNEUMOCOCCI AND SEROTYPES ISOLATED FROM STERILE BODY FLUIDS DURİNG THE LAST YEAR IN OUR CENTER

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Introduction: Pneumococcus is a gram-positive bacterium primarily responsible for invasive infections in childhood such as pneumonia, meningitis and sepsis. The pneumococcus vaccine includes capsular polysaccharide of serotypes 4, 6B, 9V, 14, 18C, 19F, 23F and it has been added to Turkish national immunization schedule in April 2011. Afterwards, 13-valent conjugated polysaccharide vaccine has been generated which includes 1, 3, 5, 6A, 7F, 19A in addition to serotypes of 7-valent's and added to the schedule in November 2018. We primarily aimed to analyze clinical and laboratory findings of isolates from pediatric invasive pneumococcal diseases, along with serotypes.

Methods: Pediatric inpatients with invasive pneumococcal disease in 2019 were included to our study. Demographic data such as age, gender; additionally, the diagnoses of patients, laboratory findings, sterile fluids where pneumococci has been isolated, chosen antibiotics for treatment, duration of treatment, the antibiotic resistance of pneumococci, status of immunization and serotypes of pneumococci were noted.

The patient population consisted of patients who received inpatient treatment and have pneumococcal isolation in their sterile body fluids throughout 2019 at University of Health Sciences Tepecik Training and Research Hospital in İzmir. Newborns and adults have been excluded. The study was approved by the Ethical Committee in January 2020.

Results: *S. pneumoniae* has been isolated in 9 samples throughout the year of 2019; meningitis occurred in one patient two times in a year with an interval of 4 months. One of 8 patients was female (12.5%) and 7 of them were male (87.5%). The mean age of the patients was 3.9±3.6 years (min-max 9 months-9 years). Four (44.5%) of them were diagnosed with meningitis, two with acute mastoiditis (22.3%), one with sepsis (11.2%), one with septic arthritis (11.2%), and one with pneumonia (11.2%). The patient who was diagnosed with septic arthritis also had bacteremia. The average hospitalization day was 16.2±10.2 days.

The mean value of laboratory findings were; hemoglobin 10±1.7 g/dL (min-max 7.4-13.7), white blood cells 20.1±9.9 x10^3/uL (min-max 3.6-33.1), platelets 376±215,7x10^3/uL (min-max 124-675), C-reactive ptotein 197±131.1 mg/L (min-max 12.5-402.7), procalcitonin 7.62±9.38 µg/L (min-max 0.01-22.90).

The treatment of five (55.6%) patients was third generation cephalosporin alone, while the treatment of four (44.5%) was arranged with third generation cephalosporin and vancomycin. Total treatment time was 14.4±8.9 days on average. Two of 9 (22.3%) isolates were found resistant to cephalosporins.

Whilst six patients (75%) were vaccinated according to our national vaccination schedule, two patients (25%) were not vaccinated. When the serogroups of isolated pneumococci are examined; two patients were identified as 19F, one patient as E group (not typed), 15B, 3, 23F, 35B, 14 and 6A. Six of the nine isolates (66.7%) were serogroups in the vaccine content, but two of these samples were isolated from children who were not vaccinated; the one with sepsis has the only single dose of PVC-13 when he was 2 months old which considered of nonimmune and the one with septic arthritis was 15 months old and unvaccinated.

Conclusion: Invasive pneumococcal infections are still widespread in nowadays, despite developed immunization programmes. With the determination of serogroups, information about vaccine coverage and effectiveness can be revealed more clearly, still larger, more extensive surveillance studies are required to assign.

SS17

VIRAL ETIOLOGY OF CENTRAL NERVOUS SYSTEM INFECTİONS IN CHILDREN ISOLATED BY REAL TIME PCR METHOD IN CEREBROSPINAL FLUID SAMPLES

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Background: Since the increased morbidity and mortality of central nervous system infections (CNSIs) due to viruses, rapid and accurate diagnosis is mandatory [(1)]. Especially, human non-polio enterovirus is a major cause of infection in children, in particular in neonates and infants [(1,2,3)]. The aim of this study was to determine the frequency of viral microorganisms that cause CNSIs by multiplex real-time polymerase chain reaction (RT-PCR) method from the samples of cerebrospinal fluid (CSF) in children.

Methods: Between January 2017 to December 2019, all of the CSF samples obtained from children that were evaluated by RT-PCR method were included in the study. By RT-PCR method, samples were studied for Herpes-Simplex Virus type 1 (HSV-1), Herpes-Simplex Virus type 2 (HSV-2), Enterovirus (EV), and Varicella Zoster Virus (VZV) positivity. Nucleic acid extraction was performed automatically on the EZ1 Advanced XL (Qiagene, Hilden Germany) device using the EZ1 Virus Mini Kit v2.0 kit (Qiagene, Hilden Germany). Multiplex RT-PCR was performed on the C1000 Thermal Cycler (Bio-Rad, Hercules, CA, USA) device using FTD +us bacteriologic cultures of CSF samples were also evaluated retrospectively.

Results: During the study period, a total of 201 CSF samples of 201 pediatric patients were evaluated by RT-PCR method. Of these patients, 122 (61%) were male and 79 (39%) were female. Ninety-two (46%) patients were younger than 1 year old and 30 (15%) were in the neonatal period. Of the 201 CSF samples, 185 (92%) were negative and 16 were positive (8%) for RT-PCR. The distribution of the viral etiologies detected positive in CSF samples were as follow; HSV-1 was detected in two (1%) samples, EV in 10 (5%) samples, and HSV-2 in three (1.5%) samples, while HSV-1 and EV were found positive in one same sample (0.5%). Nine patients with positive RT-PCR samples were ≤1 year old and seven patients were >1 year old. Bacterial growth was not detected in none of the 16 samples which were positive in RT-PCR for viral agents. Considering the application season of the patients with positive RT-PCR; 3 (18.8%) patients were diagnosed in spring, 5 (31.3%) patients in summer, 7 (43.8%) patients in autumn, and one (6.3%) patient in winter.

Discussion: Adequate treatment is essential for management of CNSIs. Thus, to have rapid test result for the definite microbiologic agent that causes CNSIs is very important for clinicians [(1)]. As in the previous studies, EV was the most frequently detected agent of viral CNSIs in the current study. The advantages of RT-PCR are the small amounts of samples required, its rapidity, high sensitivity and specificity [(4)]. Limitations of this study are the retrospective design and the absence of clinical data.

Conclusion: The importance of RT-PCR method in the effective and rapid diagnosis of viral agents that cause meningitis increases every year. Due to significantly more sensitive and rapid diagnosis, RT-PCR have become the standard for detection of viral microorganisms in CSF, and timely results can reduce length of hospital stay and antibiotic use.

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SS18

EVALUATION OF GROWTH OF A RARE AGENT; *ELIZABETHKINGIA MENINGOSEPTICA,* FROM PEDİATRİC PATIENTS IN A TERTIARY RESEARCH AND EDUCATION HOSPITAL

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Aim: *Elizabethkingia meningoseptica* is an oxidase and catalase positive, nonfermenting, nonmotile, gram-negative bacilli [(1)]. It's been reported that, they can survive even in chlorinated water at the hospital environment and can contaminate entubation tubes, respiratory and humidifying device. They do not normally exists in the human body but have been reported to cause various invasive infections such as; endocarditis, sellulitis, wound infections, bacteremia, abscess, dialysis related peritonitis and meningitidis at long term hospitalized new borns and immunsupressed adult patients. Neverthless it's mostly the cause of hospital accuired pneumoniae [(1,2)].

In this study, it's aimed to present the infections of *E. meningoseptica* which growed on the cultures of pediatric inpatients in our hospital's various clinics.

Methods: All *E. meningoseptica* strains which growed on the cultures of pediatric inpatients in our hospital's various clinics until now and the clinical data of the patients have been searched retrospectively. Identification of isolates were made by conventional methods, VİTEK 2 Compact (bioMerioux, France) system and MALDİ-TOF MS (Bruker, Germany). Susceptibility of antibiotics were studied by Kirby-Bauer disc diffusion method and VİTEK 2 Compact (bioMerioux, France) system according to CLSI and EUCAST standarts. When repetative growth was detected, only the first strain of each patient included in the study.

Results: From 2009 (when first strain isolated) untill now, the clinical data of the pediatric patients (Table 1) and antibiotic susceptibilty of the strains (Table 2) are presented in the tables.

Discussion: *E. meningoseptica* are isolated mostly as hospital acquired infection agents and can make outbreaks especially in ICUs. Ratnamani et al. have reported eight patients infected with *E. meningoseptica* in their hospital over a 6-month period. All were on mechanical ventilation and bedside hemodialysis in ICU [(3)]. Weawer et al. have reported 19 patients on mechanical ventilation and infected with *E. meningoseptica* in ICU and eight were dead [(4)]. Also *E. meningosepticum* outbreaks in neonates and pediatric patients have been reported [(5-6)]. In our study all the patients were individual pediatric cases from various clinics and times.

E. meningoseptica are usually multi drug resistant and this situation effects prognosis. Especially resistance to beta-lactams is obvious [(7)]. Also they're resistant to aminoglycosides, tetracyclines and chloramphenicol. Elizabethkingia spp are known to be intrinsically resistant to tigecycline and polymyxins due to the production of both class A extended spectrum beta lactamases (ESBL) and class B metallo-β-lactamases (MBLs). The MBLs confer resistance to aztreonam and carbapenems, the latter being the mainstay drugs for the treatment of multidrug resistant gram negative bacteria [(1)]. In our study, the most effective antibiotics to the *E. meningoseptica* strains we isolated in our hospital, were found sefoperazone-sulbactam, ciprofloxasin and trimethoprim-sulfamethoxazole.

This microorganism, which is resistant to antibiotics frequently used in the treatment of gram-negative infections, should be kept in mind in patients at risk group who do not respond to treatment.

Keywords: Elizabethkingia meningoseptica, infection, septicemia

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Table 1. Clinical data of the patients.

Case	Age	Sex	Date	Sample	Clinic	Underlying İLlness	Clinical Diagnosis	Outcome
1	3	F	2009	Blood	Pediatric Oncology	Acute Lymphoblastic leukemia	Febrile Neutropenia	Discharged
2	6 month	F	2012	Endotracheal aspirate	Pediatric Intensive Care	Cerebral palsy, Epilepsy	Bronchopneumonia	Discharged
3	3	M	2013	Blood	3. Pediatric Clinic	Acute Disseminated Encephalomyelitis	Septicemia	Discharged
4	2	M	2013	Endotracheal aspirate	Pediatric Intensive Care	Joubert Syndrome, Epilepsy	Septicemia	Exitus
5	3 month	F	2013	Blood	4. Pediatric Clinic	Agangliyonic Bowel, Colostomy	Septicemia	Discharged
6	5 month	F	2014	Endotarcheal aspirate	Pediatric Intensive Care	Meningomyelocele	Septicemia	Discharged
7	2	M	2015	Wound swab	Pediatric Gastroenterology Clinic	Ileus, Cronic diarrhea	Septicemia	Discharged
8	5	M	2015	Blood	Pediatric Intensive Care	Atrial Septal Defect, Respiratory allergy	Septicemia	Discharged
9	4	F	2016	Blood	Pediatric Intensive Care	Cerebral palsy	Aspiration pneumoniae, Septicemia	Discharged
10	5 month	F	2017	Cerebrospinal fluid	Nursling Clinic	Hydrocephalus	Ventriculoperitoneai shunt infection	Discharged (Transferred to another hospital at the request of the family)
11	1	M	2018	Cerebrospinal fluid	Nursling Clinic	Hydrocephalus	Ventriculoperitoneai shunt infection	Discharged
12	17	F	2018	Endotracheal aspirate	Pediatric Intensive Care	Serebral palsi, Tübülointerstisyel nefrit	Septicemia	Discharged
13	1	M	2019	Blood	Nursling Clinic	Trisomy 21, Hirschsprung Disease, Colostomy	Septicemia	Discharged

Table 2. Antibiotic susceptibility of E.meningoseptica strains.

Strain No	Ceftazidime	Cefepime	Cefoperazone-sulbactam	Piperaciilin-tazobactam	Amikacin	Gentamicin	Trimethoprim-sulfamethoksazol	Ciprofloxacin	Imipenem	Meropenem	Vancomycin
1	R	R	-	-	R	R	R	R	R	I	-
2	R	R	S	-	-	-	-	S	R	R	-
3	-	S	S	-	S	R	S	-	R	R	-
4	R	R	-	-	-	-	R	S	R	R	-
5	R	R	S	-	-	-	R	S	R	R	-
6	R	R	S	R	S	R	R	R	I	R	-
7	R	R	S	R	-	R	S	S	S	R	-
8	R	R	-	S	I	S	-	S	R	R	-
9	R	R	R	R	R	R	-	S	R	R	R
10	R	R	-	R	-	R	S	S	R	R	R
11	R	R	-	R	R	R	-	R	R	R	-
12	-	-	-	R	S	S	S	S	R	R	R
13	R	R	-	R	R	R	S	R	R	R	

R: Resistant S: Susceptible I: Intermediate resistant

SS19

SOCIO-DEMOGRAPHIC CHARACTERISTICS AND PSYCHOSOCIAL CAUSES IN ADOLESCENTS WITH SUICIDE ATTEMPT

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Introduction: In recent years, the increasing suicide attempt in children and adolescents has become an important problem. Risk factors and triggering situations related to suicide attempt for children and adolescents have been the subject of many studies. In this study, we aimed to reveal the risks that make up the idea of suicide by examining the depression-anxiety and self-concept of adolescents as well as socio-demographic characteristics.

Method: A hundred adolescents between the ages of 12 and 18 who applied to Izmir Tepecik Training and Research Hospital for suicide attempt were included in the study. In addition to the questionnaire including socio-demographic information and familial characteristics, Beck Depression Scale, The State-Trait Anxiety Inventory, and Piers-Harris self-concept scale were applied.

Results and Discussion: 100 adolescent cases (mean age: 14.9±1.3; boy/girl; 10/90) with drug intake for suicide attempt and 70 adolescent cases (mean age: 15.4±1; boy/girl: 25/45) were included in the study. Gender, marital status, presence of boy/girlfriends, educational status, absenteeism, problems with schoolmates, internet use, number of family members, income level of the family, education status and occupation of the mother and father were similar between two groups. However, smoking and alcohol use, fragmented family rate, previous history of suicide attempt and family history of psychiatric illness were significantly higher in the group with suicide attempt. Moreover, the group with suicide attempt had a high depression rate and anxiety status ($p<0.001$), and significantly low self-concept ($p<0.001$).

Conclusion: Determining sociodemographic risk factors, depression and anxiety symptoms, and low self-concept are important in preventing adolescent suicide attempts. Giving psychiatric and social support, if necessary, will be effective in reducing suicidal attempts.

Keywords: Adolescent, depression, suicide attempt

SS20

EXAMINATION OF B12 DEFICIENT CASES WITH OTHER DEFICIENCIES

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Introduction: B_{12} plays very important roles in growth, hematopoiesis, and neurocognitive functions, Because it is essential in DNA and RNA synthesis, the homocysteine-methionine cycle, and neurotransmitter synthesis [(1)]. Therefore, it is important that their levels are within the standart limits according to group of ages, especially in childhood and adolescence. Keeping B_{12} deficiency in mind in childhood is important for a healthy development. Although the cost of replacing the B_{12} deficiency is low cost, the delay in treatment can lead to serious and irreversible complications [(2)].
Methods:A total of 167 patients aged 0-17 years, who did not have a known chronic disease and had a deficiency of B_{12}, who applied to Afyon Kocatepe University Health Sciences Hospital Child Health and Diseases Outpatient Clinic between November 2018 and December 2019 were included in the study. The clinical and demographic data of the patients were retrospectively analyzed through the hospital information system. Vitamin B_{12} deficiency is identified between 160-200 pg/mL and vitamin B_{12} severe deficiency is known as below 160 pg/mL [(3)]. SPSS 23.0 statistical program was used to analyze the data. For numerical data, the median and distribution range, arithmetic mean±standard deviation were used. Categorical data were specified as numbers and percentages. The results obtained were evaluated to be $p<0.05$ significant.
Results: 40% (n:66) of the patients were boys and 60% (n:101) were girls. The average age was 9.8±6 years. B_{12} mean value was found to be 168±33. Severe B_{12} deficiency was detected in 29% (n:55) cases. Severe B_{12} deficiency was found to be 49% (27/55) most commonly in adolescence, 40% in second-most infants and finally 11% (6/55) in the 3-9 age group. Anemia was present in 14% of the patients (n:24). Considering the complaints, 18% (n:30) applied with nonspecific complaints such as headache, anorexia 16% (n:26), 13% (n:22) weakness, 10% (n:16) growth retardation. Fatigue was most frequently found at the age of 15 and after 64% (14/22). Vitamin D deficiency was found to be significantly higher in the 10-17 age group and anemia 0-9 age group (p:0,000). Anemia was found to be significantly higher in the severe B_{12} deficiency (p:0.012). MCV mean values between the groups were found to be significantly lower in the severe B_{12} deficiency group (p:0.02).
Discussion: In a wide-ranging study which European countries are examined, it has been reported that adolescents have unbalanced diet, 50% of those who start the day with breakfast, and the daily consumption of vegetables and fruits is 20% [(4)]. As the results of two studies, it is reported that B_{12} deficiency is frequently encountered in our country due to maternal nutrition [(5,6)]. Especially in the research, severe B_{12} deficiency was found most frequently in adolescence and the second most common infancy in this study. In this study, in accordance with the literature, b12 deficiency was higher in girls [(7)]. In this study, in accordance with the literature, the fatique was found more frequently after the age of 15 [(8)]. In a study, it was emphasized that these two deficiencies are common and often accompany each other. Therefore, it is stated that it is difficult to determine which one is the cause of the anemia [(9)]. Similar to the literature, anemia was detected in 14% of patients (24/167) in this study. In researches; because B_{12} deficency and iron deficiency often accompany each other, it has been reported that the macrocytosis incidence of markedly decreased [(10,11)]. In this study, MCV elevation was not detected in any patient. In this study, , in accordance with the literature, when the 0-9 age group and the 10-17 age group were compared, a significantly higher level of deficiency was found in the adolescent group (19/57) [(12)].
Conclusion: B_{12} deficiency is more frequent, and accompanying iron and D vit deficiencies are observed at a high rate. It should be kept in mind for deficiencies that families with socioeconomic low level is important, as well as adolescents with unbalanced nutrition. It is a well-known fact that breast milk benefits from many aspects such as growth and development and immunity. More studies should be done to increase the education of the mothers and to follow the mother in terms of deficiencies and to replace the deficiencies during and after pregnancy.

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SS23

THE EFFECT OF KETOGENIC DIET ON THYROID FUNCTIONS IN CHILDREN WITH DRUG RESISTANT EPILEPSY

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Background: Ketogenic diet (KD) treatment remains a valuable therapeutic option for patients with intractable epilepsy. It is not a benign therapy, however, being associated with a number of side effects. However, few data are available for its effects on thyroid functions.

Aim: The aim of this study was to investigate the effects of the KD on thyroid functions in children with drug resistant epilepsy during a 12-month treatment period.

Method: A total of 60 children (33 females) aged 0 to 168 months (median, 52 months) with medically refractory epilepsy who received a KD for at least 12 months at University of Health Sciences, Dr. Behçet Uz Children's Education and Research Hospital between 2014 and 2019 years were enrolled in the study. All children were started on ketogenic diet with 3:1 ratio which was adjusted after KD onset as clinically necessary. Serum free triiodothronine (FT3), free thyroxine (FT4) and thyroid-stimulating hormone (TSH) levels were measured before and at first, third, sixth, and twelfth months of therapy. Subclinical hypothroidism was defined as TSH ≥5.5 mIU/L.

Results: Levels of FT3 and FT4 did not change during 12 month treatment period. While TSH levels remained unchanged at the first, third and sixth months, they decreased significantly at month-12 (median 2.57 mIU/L) when compared to baseline levels (median 2.15 mIU/L) ($p=0.025$). The frequency of subclinical hypothyroidism decreased nonsignificantly at month 12 (1.9%) when compared baseline rate (13%) ($p=0.07$). The median number of antiepileptic drugs decreased from 3 at baseline to 2 at month 12 ($p<0.001$).

Discussion: It is well-known that administration of AEDs may disturb thyroid function in children with epilepsy [(1)]. The number of antiepileptic drugs decreased significantly during 12 months of KD treatment period in our study. Thus improvement in thyroid functions in our series may be due to decrease in the number of antiepileptic drugs. KD is a highly restrictive diet containing limited quantities of fruits, vegetables, enriched grains, and foods. Thus essential vitamin and minerals normally found in a well-balanced diet are deficient in KD [(2)]. Accordingly it may be expected that these deficiencies may disturb thyroid functions. However multivitamin and mineral supplementation were given to all patients from the beginning of KD. This adequate multivitamin and mineral supplementation might have contributed the improvement in thyroid functions.

Conclusion: Ketogenic diet treatment appears to improve thyroid functions in children with refractory epilepsy. However it is well-known that antiepileptic drugs have deleterious effects on thyroid functions. Therefore further studies are required to search whether this improvement is due to KD therapy itself or due to reduction of the number of antiepileptic drugs used.

Keywords: Ketogenic diet; medically refractory epilepsy; thyroid functions, hypothyroidism

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SS24

THE EFFECT OF KETOGENİC DIET ON SERUM LİPİD CONCENTRATIONS IN CHILDREN WITH DRUG RESİSTANT EPILEPSY

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Background: Ketogenic diet (KD) treatment is a valuable therapeutic option for patients with drug resistant epilepsy. It is not a benign therapy, however, being associated with a number of side effects including dyslipidemia. However limited data are available for long term effects of KD mainly based on olive oil on serum lipid levels.

Aim: The aim of this study was to investigate the effects of the KD on serum lipid concentrations in children with drug resistant epilepsy.

Method: A total of 57 children (32 females) aged 0 to 168 months (median, 53 months) with medically refractory epilepsy who received a KD for at least 12 months at University of Health Sciences, Dr. Behçet Uz Children's Education and Research Hospital between 2014 and 2019 years were enrolled in the study. All children were started on ketogenic diet with 3:1 ratio which was adjusted between 2:1 to 4:1 after KD onset as clinically necessary. Serum total cholesterol, low density lipoprotein cholesterol (LDL-C), high density lipoprotein cholesterol (HDL-C), and triglyceride concentrations were measured before and at month-1, -3, -6, -12, -18, and -24.

Results: While median total cholesterol concentrations at month-1, -3, -6, -12, and month-24 increased significantly compared to baseline levels, they did not change between 1 to 12 months. (Table) When compared to baseline rates, while frequency of patients with hypercholesterolemia were found higher at month-1, -3, and month-6, it was not significantly different at month-12,-18, and month-24. While median triglyceride concentrations at month-1, -3, -6, -12, -18, and month-24 increased significantly compared to baseline levels, they did not change between 1 to 24 months. Similarly, when compared to baseline rates, while frequency of patients with hypertriglyceridemia were found higher from month-1 to month-24, it did not change between 1 to 24 months. KD treatment was discontinued in one patient due to hypertriglyceridemia.

Discussion: Similar with our findings, it has been previously shown that the ketogenic diet caused an increase in both total cholesterol and triglycerides [(1)]. Besides in another study it has also been shown that dyslipidemia improved with diet modifications [(2)]. Thus the decreasing trend in the levels of cholesterol and triglyceride during 24-month treatment period in our series may be attributed to high dietary content of olive oil which is different from western ketogenic diets.

Conclusion: KD treatment causes high cholesterol and triglyceride levels in the first month of treatment and this elevation continues for 24 months in children with refractory epilepsy. However, this increment does not continue after the first month, but it draws a plateau with a decreasing trend for a duration of 24 months. Moreover the frequency of patients with hypercholesterolemia decreases significantly after 12 months and approaches the pre-treatment rates.

Keywords: Ketogenic diet; epilepsy; lipid levels, hypercholesterolemia, hypertriglyceridemia

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SS25

CONGENITAL MUSCULAR DYSTROPHY - EVALUATION OF CASES DIAGNOSED WITH GENETIC PANEL

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Congenital muscular dystrophy (CMD) is a rare, heterogen group of neuromuscular disorder characterised by early onset hypotonia, muscle weakness, joint contractures and delay in motor development. We report clinical and genetic findings of six patients who were diagnosed with congenital muscular dystrophy panel.

The ages of our patients were 3 months, 2 years, 5 years, 6 years, 11 years and 16 years, two of our patients were male and four were female. There was consanguineous marriage between parents of three patients. With the congenital muscular dystrophy panel, four cases were diagnosed as alpha dystroglycanopathy (POMT1 mutation), one case had RYR1-associated congenital muscular dystrophy, and one case had muscle eye brain disease (POMGNT1 mutation). All cases had delay in motor development mile stones starting in early period of life. Microcephaly was detected in three of the cases with alpha dystroglycanopathy. CK (creatine kinase) levels of all cases were high (300-6000 IU/L). Sensory and motor nerves were normal in ENMG (electroneuromyography) examinations, myopathic findings were detected in needle EMG which could be performed in 3 cases. Brain MRI (magnetic resonance imaging) findings were present in a patient with an alphadystroglycanopathy and a patient with muscle-eye brain disease. Brain MRI showed cerebral, cerebellar atrophy, brainstem atrophy, and signal intensity changes in periventricular white matter. Four patients had delay in cognitive fonctions besides the delay in motor development and one patient had significant behavioral impairment. Two patients underwent muscle biopsy during their follow-up, but muscle biopsy was not diagnostic. Congenital muscular dystrophies are a rare, heterogeneous group of diseases. In cases presenting with motor development retardation, it should be kept in mind in the differential diagnosis. With genetic diagnostic methods, the number of muscular dystrophy patients is expected to increase.

SS26

DIAGNOSTİC AND SOCIO-DEMOGRAPHIC CHARACTERISTICS OF REFERRALS IN A UNIVERSITY HOSPITAL CHİLD PSYCHİATRY HEALTH COUNCIL OUTPATIENT İN 6 MONTHS PERIOD

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Aim: One of the working areas of child psychiatry is children with mental and physical disabilities. Many children and young people in our country apply to "disabled health councils" in various hospitals in order to use their social and educational rights. Few studies in our country evaluated the referrals of the disabled health council in the field of child psychiatry, and revealed the reasons for the application and related situations ([1-5]. It is aimed in this study to review the data of children who applied a child psychiatry health council outpatient clinic retrospectively.

Method: In the present study, the related information and diagnostic characteristics of all individuals who applied to Pamukkale University Faculty of Medicine Child and Adolescent Psychiatry Health Council Outpatient Clinic between April 2018 and October 2018 were examined from the policlinic medical records. Sociodemographic characteristics, birth history, diagnostic status, prior information on whether or not they received special education, child psychiatry and total health council disabled rates were recorded. Consent was obtained from the University Ethics Committee for the research. The data obtained are presented using descriptive statistics (rate, percentage, average, etc.).

Results: Totally 171 cases were reviewed in the study. There were 62 girls (36.3%) and 109 boys (63.7%). The mean age was 89.1 months (SD=57.6, min=4, max=214 months). Among the participants, 134 (78.8%) were born at term and 36 (21.2%) were born preterm. 29 (16.9%) had natal and 16 (9.3%) had postnatal problems. While 123 (71.9%) of the cases received at least one diagnosis from the field of child psychiatry, 48 (28.1%) did not receive any diagnosis. The most common diagnosis in child psychiatry health council was intelligence dysfunction (40.9%). In 75 (43.9%) of the cases, there was an additional medical disease, while in 96 (56.1%), there was not. 36 of the cases (21.1%) were currently attending special education, while 135 were not receiving special education (78.9%). 47 (27.4%) cases did not receive a disability rate; other 115 (67.3%) received a disability rate from child psychiatry field (min=20%, max=90%; median=40%, mean=39.2%, SD=19.0%). Regarding total disability rates of the patients,151 (94.3%) patients received a disability rate (min=5%, max=99%; median=50%, mean=50.7%, SD=24.88%). Of the 151 children or adolescents who received a disability rate from the health council, 21 (12.3%) were assessed as "severely disabled" while 130 (88.3%) were assessed as "not severely disabled".

Discussion: Our study showed that the most common reason for referral in the health council was intelligence dysfunction alike to other studies (3,5). Health council evaluation initiates processes that enable applicants to benefit from special education and other social and educational rights. The knowledge to be obtained by the review of health council records in various institutions will contribute to the improvement of our understanding by creation of data for the disorders in this scope and to make arrangements for the cases applying to these councils.

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SS27

CHARACTERISTICS OF CHILDREN WITH GUILLAIN - BARRÉ SYNDROME

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Introduction: After polio eradication programs worldwide, Guillain-Barré syndrome (GBS) has been the most common cause of acute flask paralysis in healthy babies and children [1,2]. The incidence of GBS is between 0.34 and 1.34 per 100,000 in pediatric population [3,4]. The most common symptoms in children are refusal to walk and pain in the legs [5]. Pain is typically in the back and legs [6]. The classic presentation of GBS is in the form of paresthesia on the toes and fingers, followed by symmetrically ascending weakness [7]. In aytipical cases it may be asymmetric, descending or limited to facial muscles. Respiratory muscles may be involved in severe cases. Physical examination typically includes symmetrical muscle weakness, gait disturbances and absent or diminished deep tendon reflexes. Early symptoms can be atypical and make the diagnosis difficult. Symptoms reach peak in more than 90 percent of patients within two to four weeks.The main therapies in Gbs are intravenous immune globulin (IVIG) and plasma exchange. IVIG is preferred for plasma exchange in children due to safety and accesibility but in the literature the treatments have no priority to each other [8,9]. Recovery of the neuromotor functions usually begin from the 4th week of the onset [10]. The clinical course of GBS in children is shorter than in adults, and recovery is usually without sequelae [11].

Method: Forty three patients who were followed up with the diagnosis of GBS in Behçet uz Children's Hospital between 2013-2019 were analyzed retrospectively. The included children were subjected to through medical history and detailed systemic and neurological examination. Nerve conduction studies and magnetic resonance imaging were done for all patients. GBS disability score was used to determine the disability status of the patients [12,13]. Treatment, hospitalization and sequela were examined.

Results: Gbs average age was 6.9±4.7 years. Eighteen patients were female (41.9%) and 25 patients (58.1%) were male. On physical examination, muscle strength was normal in 2 (4.7%) patients, 4/5 in 24 (55.8%) patients, 3/5 in 12 (32.6%) patients, 2/5 in 3 (7%) patients. Deep tendon reflex was normal in 3 (7%) patients, diminished in 8 (18.6%) patients, absent in 32 patients (%74.4) All patients (27 patients) with Gbs disability score 3 and above were given intravenous immunoglobulin (ivig) therapy. Of the 16 patients with a score of 2 or less, 10 received ivig. Six patients were followed without treatment because no progression developed. Patients with Gbs disability scale 1 and above at first year controls were considered as sequelae. Sequela was detected in seven patients (16.2%).

Conclusion: Gbs should be suspected primarily in cases presenting with acute flaccid paralysis. Although the progressive muscle weakness and inability to walk are often the most common symptoms of admission, it should be remembered that atypical clinical symptoms such as hemiplegia, ophthalmoplegiaIn case of clinical suspicion, even if craniopsinal mr and Emg are normal, early administration of ivig therapy may reduce morbidity and mortality in patients with clinical progressionIt should be taken into consideration that recovery may take 1 year. patients should be invited to close polyclinic controls. For objective follow-up of clinical improvement, we recommend evaluating patients with hospitalization and polyclinic controls with a gbs disability scale. Etiological examination requires wider case series to evaluate treatment efficacy.

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SS29

GUIDANCE TEACHERS' VİEWS ON ALCOHOL AND SUBSTANCE USE DISORDERS

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Introduction: Many behaviors that negatively affect health, including substance use, usually begin during adolescence and these are major public health problems. Substance abuse increasingly leads to social, physical and mental problems, causing significant negative effects on the family and society [(1)]. Adolescence is a sensitive period in which various risks can be taken to help improve life skills; this sensitivity creates a predisposition for Substance Use Disorder. Substance use at an early age triggers neurobiological changes, further increasing the risk of substance use, and prevents neurodevelopment, which should continue normally [(2)].

Method: This study was planned as a cross-sectional survey study. The study was carried out in January 2018-2019 academic year with 147 guidance counselors who were working in the schools in Denizli city center where Merkezefendi District Guidance and Research Center (RAM) was responsible for. The guidance teachers were working in primary, secondary or high schools. All the guidance teachers in the catchment area of Denizli Merkezefendi RAM were reached. Guidance teachers filled the questionnaire which was created by the researcher to collect Sociodemographic data and data about the opinions of the teachers on the alcohol and substance use of the students.

Results: 61.2% (n:90) of 147 participants were male and 38.8% were female. 38.1% (n:56) of the guidance teachers were between the ages of 22-30, 34.7% (n:51) were between the ages of 31-40 and 27.2% were 41 years of age or older. 20.7% of teachers (n:31) had a working history for 1-5 years, 34.7% (n:51) for 6-10 years, 14% (n:21) for 11-15 years, 16% (n:24) for 16-20 years and 14.6% had a working history for 21 years or more. 29.3% (n:44) of the teachers were working in primary schools, 35.3% (n:53) in secondary schools and 34% (n:51) were working in high schools. 43.3% (n:65) of the guidance teachers had at least one student who used alcohol or substanec during their professional life. The proportion of teachers who had previously received training on alcohol substance use disorders was 88.7% (n:133). 88.6% of respondents (n:132) reported that these trainings were beneficial. 22% of guidance teachers thought their level of knowledge about alcohol substance use disorders was sufficient, 64% thought it was partially sufficient, while 14% stated their level of knowledge on this subject as insufficient (Figure-1). 76% (n:115) of the guidance teachers reported that alcohol substance use disorders were illness, and 53.7% (n:80) reported that this disorder was a brain disorder. According to the teachers, the main causes of substance use disorder were: family 92% (n:136), friend environment 92.5% (n:136), school environment 54% (n:81), biological factors 32.7% (n:49) character- and personality-related factors 29.3% (n:44), mental disorders 26.7% (n:40) and medical diseases 16% (n:24). 87.9% (n:131) of the teachers thought that alcohol and substance use disorders were treatable.

Discussion: It is important to increase the awareness and knowledge of all school-related staff, especially guidance teachers, on alcohol substance disorders. It is thought that the establishment and implementation of school-based preventive and intervention programs whose effectiveness for alcohol substance use disorder has been demonstrated and which are appropriate for the country's requirements will be the most effective intervention to prevent these disorders.

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SS30

THE EFFECT OF HYPOTHERMIA IN A RAT TESTICULAR TORSION/DETORSION MODEL

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Objective: The protective effect of hypothermia on ischemia/reperfusion injury is a well-known. Hypothermia can be easily applied clinically via ice bags in peroperative and postoperative period. In this study, we aim to study this effect of hypothermia via creating a model of clinically applicable rat testicular torsion/detorsion model.
Method: Rats were divided into 5 groups (n=7): (1) Sham (S), (2) Torsion/detorsion (T/D): right testis was torsed for 1 hour, (3) Torsion/detorsion + hypothermia 1 (T/D+H1): right testis was torsed for 1 hour, then submerged into iced water at 4°C for 30 min, (4) Torsion/detorsion +hypothermia 2 (T/D+H2): right testis was torsed for 1 hour, then submerged into iced water at 4°C for a total of 90 min (30 min before and 1 hour after detorsion), (5) Hypothermia (H): right testis was kept in iced water at 4°C for 90 min. Testicular diameters at preoperative period and 8th postoperative week were measured. Biochemically, MPO, NO, 3-NT and 4-HNE in testicular tissue and serum levels of NO, PGF 2alfa, 3-NT, 8-OHdG and 4-HNE were studied. Histopathologic examination was also performed.
Results: Parameters of both groups T/D+H1 and T/D+H2 were statistically different from group T/D with respect to protective effects of hypothermia. Johnsen score was not statistically different only in group T/D+H1. There were no difference in all measurements except tissue 3-NT level between T/D+H1 and T/D+H2 groups. Increased tissue NO level and lower Johnsen score although statistically indifferent were detected in group H when compared to sham group.
Conclusion: Hypothermia applied before detorsion has been shown to be macroscopically, biochemically and histopathologically beneficial in the long term. We think that further studies about hypothermic applications in the preoperative period should be planned in vivo and can be used in the routine daily practice. Since hypothermia in the reperfusion period is not beneficial, the effect of mild hypothermia rather than iced water in this period should be studied.

This presentation has been granted by the Muğla Sıtkı Koçman University Research Projects Coordination Office through Project Grant Number: 17/285.

Keywords: Testis, Torsion, Detorsion, Ischemia, Reperfusion, Hypothermia

SS31

MEDICAL APPROACH TO URETHEROLITHIASIS IN PEDIATRIC POPULATION

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Introduction: Incidence of uretherolithiasis in pediatric population is increasing in recent yearsTreatment options are, URS, open surgery and medical; doxazosin and tamsulosin are prominant drugs. Recent studies showed these agents are safe in pediatric patients.In this study outcomes of patients with isolated uretherolithiazis treated with doxazosin presented.

Method: Between June 2016-April 2017 12 patients with urether stone was treated with doxazosin. All patients had iv hid ration,antibiotics,analgesics. Prior to medication all went in echocardiography for possible underlying cardiac issue. Age, gender, number of stones,size, location, ap diameter, presence of UTI, need for surgery, complication, underlying cardiac pathology, stone passing time, duration of hospitalization are the parameters that utilized.

Results: Total 12 patients with 11 distal 1 proximal ureteral stones included in study-5 of them boys and 7 girls. Mean age is 10.7 (4-17). The mean medication duration 4.3 days (6-1), hospitalization day 3.6 (8-1); the mean stone passing time 4.2 days (8-1).

2 patients had to be interned with; left ventricule hypertrophia and low blood potassium which explains long duration of hospitalization.Only 1 patient underwent URS because of rising in AP diameter. No complication is observed.

Conclusion: Doxazosin is related with a greater incidence of expulsion of ureteral calculi in a short preiod of time - need less day of hospitalization. However need for analgesic agents isn't reduced.

SS32

FULL THİCKNESS SKIN GRAFT USE IN CIRCUMCISION COMPLICATION

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Introduction: Circumcision is excision of penil skin that covers glans penis in a certain dimension, for medical or religious moral reasons. When it is performed under unsuitable conditions by untrained person, risk of complicaiton increase dramatically. Circumcision complications are penile adhesions, skin birdges, meatal stenosis, redundant foreskin, recurrent phimosis and the most serious dehiscence of circumcised penil skin. In this study; 3 patients with total excised penile skin after circumcision reconstructed with full thickness skin graft taken from the groin are presented.

Methods: 3 patients aged 8-11 years old presented to clinic with unhealed wounds after having circumcision by untrained and unauthorized person. In physical examination; excessively cut penile skin from coronal sulcus to root of the penis and granulation tissue was detected. Urethra and urethral meatus was intact. After recieving wound site infection control, reconstruction with full thickness skin graft from upper left groin is performed. All patients were hospitalized with urinary catheter to keep the surgical wound clean and closed dressing for five days. Urinary catheters are removed at postoperative seventh day. Inguinal incisions were ephitelized and grafts were viable. Patients were followed up for at least 10 months. No graft rejection, urinary disfunction or erection problem were seen.

Conclusions: Circumcision made by untrained nonmedical persons under nonsuitable conditions has higher complication rates. A full thickness skin graft taken from groin without hair root is suitable for reconstruction in skin defects after circumcision.

Keywords: Circumcision, penile graft, recostruction

SS33

CAN DISTAL URETERAL DIAMETER MEASUREMENT PREDICT PRIMARY VESICOURETERAL REFLUX CLINICAL OUTCOME AND SUCCESS OF ENDOSCOPIC INJECTION

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Objective: To evaluate the predivtive value of distal ureteral diameter ratio (UDR) on outcome of primary vesicoureteral reflux (VUR) and reflux resolution after endsocopic injection.

Methods:383 voiding cystourethrograms (VCUG) of patients with primary VUR between 2010-2015 were rewieved. The ureteral diameter ratio (UDR) was calculaterd as the largest ureteral diameter within the false pelvis divided by the distance between L1-L3. Analyzed variables included age, gender, grade, laaterality, history of febril urinary tract infection, bladder-bowel dysfunction. Clinical outcome was defined as spontaneous resollution and surgical correction. Cox regression analysis was utilized to calculate odds ratio, effective variables in the success of treatment was analyzed by chi-squared, t-test and logistic regression analysis.

Results: 383 patients were enrolled. Mean age was 5,07 years. 321 patients underwent operation, 62 had spontaneous resolved VUR. There was a strong correlation between UDR and grade of reflux ($p>0.0001$). Mean distal UD was 4,36 mm. Mean UDR was 0.24. The avarage UDR and UD for each grade were demonstrated to be higher in the operative intervention group compared to the resolved cases. The test for linear trend was significant for the operative group ($p<0.05$). the predictive intervention group compared to the resolved cases. The predictive value of UDR for spontaneous resolution was more significant than grade ($p<0.001$). Maximum UD was 4.67±2.08 mm and maximum UDR was 0.31±0.13 in patients with spontaneous resolution. There was no spontaneous resolution over these ratio. UD and UDR were significant predictors of endoscopic injection success. Each 0.005 units increase in the UDR affected the success of endoscopic injection negatively (95% CI: 0.001-0.071).

Conclusion: UDR provides an objective measurement of VUR and appears to be a new predictive tool for clinical outcome and success after endoscopic injection.

Keywords: Distal Ureteral Diameter, VUR, Endoscopic injection

SS34

EVALUATION OF LOWER URINARY SYSTEM RECUNSTRCTION IN DUPLEX SYSTEM URETROCELE

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Aim: Upper pole partial nephrectomy (UPPN) for nonfunctioning upper pole in duplex system ureterocele (DSU) is the suggested treatment modality. However, follow-up results report that secondary surgery is required for these cases. In this study, the results of lower urinary system recunstruction (LUSR) including common sheath ureteroneocystostomy (UNC) and ureterocele excision in DSU, regardless of the upper pole function, were evaluated. We aimed to report the result and the efficacy of LUSR without UPPN with increased number of patients and follow-up period, short-term results of which were reported in 2011.

Methods:47 patients treated for unilateral DSU in our instutition between 2002-2017 were evaluated. Among these, LUSR was performed for 34 patients (22F, 12 M). 30 of these patients (17 right, 13 left) were included in the study. Endoscopic ureterocele incision or LUSR was the initial treatment for all of the patients. No UPPN was performed.

Results: Mean age of the patients was 44 months (8-144 months). Mean postoperative follow-up period was 6.1 years (1.5-13 years). Ureterocele was extravesical in 15 cases. 19 lower pole, 2 upper and lower pole reflux were present at admission. Endoscopic uretreocele incision was the initial treatment in 15 patients. Among 9 of these with no reflux before incision, upper pole reflux developed in 6. Lower grade reflux persisted in 3 patients and they were conservatively followed-up. 1 urinary tract infection (UTI) in five, 3 UTI in three and recurrent UTI in five patients developed postoperatively. Hypertension was seen only in one morbid obese patient. No proteinuria or incontinance was observed.

Result: LUSR has satisfactory results and it is not necessary to perform UPPN in DSU.

SS35

SUCCESS RATES OF ENDOSCOPIC OR OPEN SURGERY ACCORDING TO RISK GROUPS İN CHILDREN WITH VUR - IS IT REALLY NECESSARY TO GROUP PATİENTS INTO RISK GROUPS WHEN SURGERY IS PLANNED?

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Aim: Since 2011, ESPU guidelines recommends risk based approach for management of pediatric patients with vesicoureteral reflux (VUR). In the literature, the assesment of success rates of surgery after the risk classification of patients is lacking. In this retrospective study, success rates of surgical treatment in each risk group were evaluated.

Methods: Data from patients treated by either endoscopic (STING) or open surgery between 2009-2014 were retrospectively analyzed (n=250). Patients were divided into three risk groups according to EAU-Guidelines 2014. Toilet trained, older (>4 years) patients having high grade VUR (grade 4 and 5) and renal scarring were included into "high-risk group''; patients without kidney damage and with low-grade VUR (grade 1, 2 and 3) were included into "low-risk group''; all other cases who didn't meet these two were included into "intermediate-risk group''. Treatment was considered successful in cases with no VUR on VCUG at the 3rd postoperative month and no infection for 3 months after discontinuation of prophylaxis.

Results: The mean age was 6.5±3.5 years. Forty one patients who had missing data for risk grouping were excluded. Of the remaining 209 patients, 63 were in low, 97 were in intermediate and 49 were in the high-risk groups. The first STING success rates in unilateral VUR were 64%, 65%, 26% (p=0.008) in the low, medium and high risk groups, respectively; and they were 71%, 24%, 20% (p=0.001) in bilateral VUR, respectively. In unilateral VUR, all STING success rates were 92%, 86%, 58% (p=0.003) in the low, medium and high risk group, respectively; and were found 88%, 79%, 80% (p=0.78) in bilateral VUR, respectively. The success rates of open surgery were 67%, 100%, 91% (p=0.18) in the low, medium and high risk group in unilateral VUR, respectively; and 100%, 83%, 91% (p=0.68) in bilateral VUR, respectively.

Conclusion: In VUR treatment, STING provides success rates of 58-92%, whereas the success rates in open surgery is 67-100%, depending on the risk group. If the surgery is planned instead of other treatment modalities of VUR disease, minimal invasive endoscopic treatment seems more reasonable for the first line treatment of all risk groups. Given the results that low risk and intermediate risk patients have similar surgical results for unilateral VUR, it is more convenient to make risk grouping as high risk and non-high risk in cases with unilateral VUR. Risk grouping in bilateral VUR does not effect the surgical results.

Keywords: Children, management, vesicoureteral reflux, STING, surgery

SS36

THE IMPORTANCE OF DOPPLER ULTRASOUND AND PHYSICHAL EXAMINATION IN DIAGNOSIS OF TESTİCULAR TORSION

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Introduction: For cases of acute scrotum, exploration and detorsion is urgently required if testicular torsion is suspected. Scrotal doppler ultrasonography is important in the preoperative evaluation together with anamnesis and physical examination. Despite its high sensitivity and specificity, it has to be kept in mind during diagnosis that doppler ultrasound may also have false negative and false positive results.

Methods:18 patients with testicular torsion were treated in our clinic between 2008-2017. Seven of them had the history of admission to another hospital with symptoms of scrotal swelling , hyperemia, pain and had been diagnosed as epididymorchitis based upon normal or increased blood flow of testes on scrotal doppler ultrasound. They admitted to our clinic because of ongoing complaints despite oral antibiotherapy for about one week (3-10 days). Patients were urgently operated with pre-diagnosis of testicular torsion as scrotal doppler ultrasonography in our institution revealed no testicular blood flow. Testes torsion was detected in all patients peroperatively and orchiectomy was performed for the necrotic testicles. Other eleven patients admitted directly to our hospital and they were urgently operated based upon the doppler ultrasonography findings suggesting testicular torsion. Orchiectomy was performed in all of the patients.

Conclusion: Anamnesis and physical examination should also be taken into account together with scrotal ultrasonography findings, when evaluating patients presenting with acute scrotum. If there is doubt of testicular torsion, prompt surgical exploration should be performed.

Key words: Testicular torsion, ultrasound, orchiectomy

SS37

RETROSPECTİVE EVALUATION OF PATIENTS WHO HAVE UNDERGONE VESICOSTOMY: A REVIEW OF 24 PATIENTS

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Aim: In this study, we aimed to evaluate the long-term outcomes of patients who have undergone cutaneous vesicostomy at our center.

Methods: The data of patients who have undergone vesicostomy at our center between 2008-2018 were retrospectively reviewed. The analyzed parameters were; sex, indications and age at vesicostomy, follow-up period, additional surgery, febrile urinary tract infection (UTI) before and after vesicostomy.

Results: 3 of 24 patients were female (13%), 21 were male (87%). Mean age was 4 months (8 days-27 months) when they underwent vesicostomy. Among 24 patients 11(46%) had grade 4 and more bilateral vesicoureteral reflux (VUR), 6 (25%) had posterior urethral valve (PUV), 4 (17%) had neuropathic bladder, 1(4%) had Prune Belly Syndrome, 1 (4%) had bilateral multicystic dysplastic kidney with right VUR and 1 (4%) had left ureterovesical junction obstruction with VUR and right renal agenesis. Mean follow-up period was 114 months (34 months-145months). 20 patients had vesicostomy closure at a median of 1.5 postoperative year (12 months-39 months). 3 patients still have vesicostomy. 1 patient died 1 year after vesicostomy because of renal failure. Febrile UTI was seen in 19 patients (79%) before vesicostomy, whereas it was 42% after vesicostomy. No complications were observed after vesicostomy. 16 of 20 patients required additional surgery after vesicostomy closure which included ureteroneocystostomy in 10, posterior urethral valve ablation in 5 and renal transplantation in 1.

Conclusion: Vesicostomy can be considered in children with neuropathic bladder, high grade VUR or bladder outlet obstruction when first line therapies fail. Although this simple procedure with low complication rate did not reduce the need for additional surgery, it can reduce febrile urinary tract infection.

SS38

LONG TERM OUTCOMES OF SURGICAL MANAGEMENT IN PATIENTS WITH INTRAVESICAL JUNCTION OBSTRUCTION

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Aim: Ureterovesical junction obstruction (UVJO) is the second most common cause of hydronephrosis in newborns, with an estimated incidence of 36 per 100000 live births. This study aimed to assess long term outcomes of intravesical junction obstruction who underwent surgery.

Methods: 19 patients with UVJO operated in our instutition between 2007 and 2017 were retrospectively reviewed. Demographical data, ureter diameter, differantial function(DF), clinical outcomes were recorded. Cohen ureteroneocystostomy was performed in all patients. For ureters larger than 10 mm in diameter, ureteral tapering was performed with Hendren technique. Preoperative studies included ultrasound scan, voiding cystourethrography, and diuretic isotopic renogram. Wilcoxen nonparametric test was used for stastistical analysis.

Results: 16 (12M/4 F) patients with eligible follow up period participated in the present study. Mean age of the patients was 33 months (6-120 months). Four patients were operated under one year of age. Mean preoperative follow-up period was 11 months (2-24 months). UVJO was on the in 9 patients (%56.25), on the right in 4 patients (%25) and bilateral in 3 patients (%18.75). The mean distal ureteric diameter was 15.9 mm and the mean renal pelvis anteroposterior diamater (APD) was 17.5 mm before surgery. The mean preoperative DF was 35,6±16 % and found 35.5±13 % postoperatively (p=0.937) for patients who had unilateral UVJO. Tapering was performed in 14 patients (15 ureters). Distal ureter diameter was normal in postoperative follow-up in fourteen patients and decreased in 5 (mean 7.7 mm). There were no peroperative or early postoperative complications. One patient was reoperated because of ongoing obstruction after the surgery (6.25%). Only two patients had UTI more than once in early postoperative period as a minor complication. No patient had lower urinary truct disfunction (LUTD) or hypertansion in follow-up (mean 8,5 years). Overall success rate was 93.75%.

Discussion: It is well-known that the majority of congenital megaureters may be managed conservatively. But surgical intervention is necessery in some patients. British Association of Paediatric Urologists (BAPU) recommended ureteral reimplantation in over 1 year of age but recognized that the procedure may be challenging in infancy.

Conclusions: For UVJO, intravesical ureteric reimplantation together with resection of the stenotic segment and tapering if required, is a safe and effective procedure.

SS39

EVALUATION OF CLINICAL AND DEMOGRAPHIC CHARACTERİSTİCS OF ALKAPTONURIA PATIENTS

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Introduction: Alkaptonuria is an autosomal recessive metabolic disease that occurs as a result of a mutation in the gene that encodes homogentisate 1,2-dioxygenase(HGD)enzyme. Clinical manifestations occur in patients due to HGA accumulation in various tissues such as joints, bones, sclera, and brain. The only finding in patients up to adulthood is black urine color. Typically, in the third decade, an accumulation of brown or bluish pigment primarily appears in the ear cartilage and sclera. Depending on its accumulation in the joint and bone tissue, flattening in lumbar lordosis, are observed. The diagnosis of alkaptonuria is confirmed by the increased HGA in urine organic acid analysis and the detection of mutations in HGD gene analysis. In this study, it was aimed to investigate the clinical findings of patients diagnosed with AKU.

Methods: All AKU patients who were followed up in Bursa, Izmir, and Istanbul pediatric metabolism and nutrition centers and met the inclusion criteria were enrolled in the study. After obtaining consent from the adult patients themselves , the file records were examined, and their demographics, clinical and laboratory findings were recorded in the data form by the investigators.

Results: The presenting manifestations and clinical findings of 36 patients (median age 19 [10-51], 15 female (41.7%)) diagnosed with AKU as a result of urine HGA level and/or genetic assay were evaluated retrospectively. 20 patients (55.6%) were diagnosed during childhood. In twenty-eight (77.8%) patients, consanguineous marriage was observed among their parents and 24 (66.7%) patients had a family history of AKU. The median urine HGA level of the patients was 992 [463-1427] mmol/mol. The only finding in pediatric patients was black urine. The median age of patients diagnosed during adulthood was 50 [41-54], and all patients had severe joint pain complaints. While 81.3% of these patients received medical treatment with the diagnosis of arthritis, four had a history of surgery due to severe bone involvement (joint prosthesis, vertebral fixation). Apart from joint involvement, 15 patients (41.7%) had skin ochronosis, 13 patients (36.1%) had sclera ochronosis, three patients (8.3%) had aortic valve involvement, three patients (8.3%) had neurological involvement, and one patient had kidney stones. While pediatric patients were monitored with age-appropriate protein diet therapy, eight adult patients with severe joint involvement received nitisinone therapy with tyrosine-restricted diet therapy.

Discussion: In this study, clinical findings of 36 AKU patients were examined. This study is the first multicenter study to investigate AKU cases published in Turkey and has the largest case series. Inborn errors of metabolism are more common in Turkey than in other countries due to many reasons such as the high rate of consanguineous marriage. The high number of our cases suggests that AKU disease is also common in Turkey. We are of the opinion that the physicians working in this geography should be more sensitive to this disease. In our study, it was observed that patients initially presented to pediatricians with black urine during childhood, and patients who could not be diagnosed, presented to different adult clinics with severe joint pain and bone operations at 40-50 years of age. Even if there are no other accompanying findings, pediatricians should definitely refer all patients with black urine to the department of pediatric metabolism.

Conclusion: Increasing the awareness of pediatricians in terms of treatability of the alkaptonuria disease will allow early diagnosis of patients and also severe joint involvements and other organ damages to be avoided with treatment.

SS40

THE EFFECTIVENESS OF CHOLESTEROL-RESTRICTED DIET AND LIPID-LOWERING TREATMENTS IN PATIENTS WITH FAMILIAL HYPERCHOLESTEROLEMIA

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Aim: In this study, it was aimed to investigate the effectiveness of cholesterol-restricted diet and lipid-lowering treatments in patients diagnosed with familial hypercholesterolemia.

Method: Patients at Dr. Behçet Uz Pediatric Diseases and Surgery Training and Research Hospital diagnosed familial hypercholesterolemia with LDLR gene were enrolled in the study. Demographic findings of the patients were recorded. Total cholesterol, LDL cholesterol, HDL cholesterol and triglycerides levels at the time of diagnosis, after cholesterol-restricted diet therapy and after lipid-lowering treatment were evaluated.

Results: Fifty patients were included in the study. 24 of the patients (47.1%) were female. The mean age of patients was 9.8±3.5 (5-17) years. Cholesterol-restricted diet was initiated in all patients. Dietary adherence was observed in 41 (80.4%) patients.

In patients with high adherence cholesterol-restricted diet, LDL cholesterol decreased from 254.4±86.4 mg/dl to 216.6±79.0 mg/dl. With the cholesterol-restricted diet, while HDL cholesterol increased by 1%, total cholesterol, LDL cholesterol and triglyceride levels were decreased by 11.3%, 14.5% and 14.3%, respectively. In patients with low-adherence to cholesterol-restricted diet, while initial LDL cholesterol was 237.8±49.3 mg/dl, the mean LDL cholesterol level was found to be 247.6±53.9 mg/dl in clinical follow-up.

Lipid-lowering treatment (statin) was initiated in twenty-two (43.1%) patients. The treatment was not initiated to 18 (35.3%) patients who were not suitable for age and 11 (21.6%) who refused to use statin. With the lipid-lowering treatment, LDL cholesterol decreased from 233.4±99.1 mg/dl to 162.5±87.2 mg/dl. Total cholesterol, LDL cholesterol, triglyceride levels were found to decrease by 24.7%, 31.4% and 6.3%, respectively. No adverse effects of lipid-lowering medication were observed in patients during the study period.

Conclusion: In conclusion, although dietary treatment had LDL cholesterol lowering effect, cholesterol-restricted diet was found to be insufficient without lipid lowering treatment. The lipid-lowering treatments has been shown to be effective and necessary to achieve target cholesterol values in patients diagnosed familial hypercholesterolemia with LDLR gene.

Keywords: Familial hypercholesterolemia, cholesterol-restricted diet, LDLR gene, lipid-lowering therapy.

SS41

IS THE ELEVATION OF TRANSAMINASES ASSOCIATED WITH SEVERE CLINICAL COURSE IN CHILDREN WITH ROTAVIRUS GASTROENTERITIS ?

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Aim: In this study, evaluation of the association between elevated transaminases and severe clinical course, in children with rotavirus gastroenteritis between 1 month and 5 years old, was aimed.

Methods: Children between 1 month and 5 years old who were diagnosed as rotavirus gastroenteritis in Behcet Uz Children's hospital between September 2016 and September 2018 were included in to the study. Demographic, clinical and laboratory features of the patients were recorded from the hospital charges retrospectively. Patients were divided in to two groups: patients with normal transaminases with and elevated transaminases. The severity of the diasease was compared between the groups. In this comparation "Vesikari rotavirus clinical severity score", duration of the hospitalization and reqiurement of intensive care unit admission were used. Ethics committee approval was obtained from the local ethics committee of Behcet Uz Children's hospital.

Results: 188 children were included in the study. 105 (55.9%) of them were male and 83 (44.1%) of them were female. Mean age of the patients was 19.52±15.9 months and median age was 13 months. On admission elevated AST was found in 43 (22%) patients and elevated ALT was found in 40 (21%) patients. When patients with and without elevated transaminases were compared, patients with elevated transaminases were found associtaed with severe disease according to vesikari score (p=0.04). Elevated transaminases were found associated with number of diarrhea and degree of the dehydratation, but not associated with hospitalization duration and requirement of intensive care unit admission.

Conclusion: The mechanisms of elevated transaminases in rotavirus infecitons are not exactly known. Elevated transaminases may be associated with the severity of viremia and some kind of secreted cytokines. In the literature there is few knowledge about the association of transaminase elevation with the severity of rotavirus gastroenteritis. In a study from our country, elevated ALT was found more frequent in severe rotavirus gastroenteritis. In our study we found that elevated transaminases were related with high vesikari scores. However, severe complications such as requirement of intensive care admissions and length of hospitalization were similar between two groups. Although transaminase elevation seems to be associated with severe disease according to vesikari score, we think that it is not associated with horrible complications.

SS42

INVESTIGATION OF CONGENITAL MAJOR/MINOR ANOMALY FREQUENCY AND AFFECTING FACTORS IN NEWBORNS BORN AT DOKUZ EYLUL UNIVERSITY FACULTY OF MEDICINE OR REFERRED TO OUR NEONATAL OUTPATIENT CLINIC

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Objective: The main aim was to determine the distribution of congenital anomalies in children who referred to our neonatal outpatient clinic or born at Dokuz Eylul University Hospital, a tertiary health care center in İzmir, Turkey. Secondly, to investigate the risk factors affecting congenital anomaly rates.

Method: The patients who were born between October 1, 2016 and March 31, 2017 and examined in our hospital at the age of 0-28 days were included in the study. Pre-prepared data collection forms for each newborn were filled in the first examination. Perinatal and natal features, drug and vitamin use, teratogen exposure, assisted reproductive technologies (ART), consanguineous marriage, presence of relatives with congenital anomalies, socioeconomic data and examination findings were recorded. Anomalies detected until September 2017 were also scanned and recorded through the hospital information system. Patients with major anomalies or multiple minor anomalies were referred to the pediatric genetic clinic. Patients with anomalies and healthy children were compared in terms of risk factors.

Results: Four hundred and eighty six newborns, 224 girls (46.1%) and 262 boys (53.9%) were included. 22.4% were preterm, 6% were multiple pregnancies and 57.4% were delivered by cesarean section. The total number of patients with major and/or minor congenital anomalies was 141 (29%). Single major malformations were present in 29(6%) and multiple major malformations in 5 (1%) patients. Major anomalies were listed as cardiovascular (36.8%), skeletal (15.8%), otolaryngology (13.2%) and genitourinary (13.2%) system anomalies in order of frequency. There were two patients diagnosed with a genetic syndrome, Down syndrome and Jeune asphyxiating thoracic dystrophy. In multivariate analysis, the presence of an individual with a congenital anomaly in the first degree relatives (OR: 5.2, 95% CI: 1.6-16.1), consanguineous marriage (OR: 2.9, 95% CI: 1.1-8.2) and the mother's declaration of having a urinary tract infection (UTI) during pregnancy (OR: 5.0, 95% CI: 1.5-16.7) increased the risk of major anomalies. When all major and/or minor anomalies are included, ART (OR: 2.2, 95% CI: 1.0-4.7), a mother with an education level of primary school or below (OR: 2.3, 95% CI: 1.2-4.3) and mother reporting UTI during pregnancy (OR: 4.1, 95% CI: 1.5-11.4) were associated with higher risk of congenital anomaly. Children with two or more minor malformations were 6.3 times (OR=6.31, 95% CI: 2.74-14.48) more likely to have major anomalies.

Discussion: In the largest prospective multicenter study, in 1996, which evaluated the rate of congenital anomalies in newborns born at 22 university hospitals, the frequency was 3.7% [(1)]. Our high rates might be due to several factors: 1) All malformations diagnosed in a six-month period were recorded. 2) It is possible that parents with congenital anomalies in their children might have participated more in the survey. 3) Our hospital is a reference center. Besides, the change in the incidence across time is also an unknown issue.

The evidence on the association between maternal UTI and congenital malformations are conflicting [(2-4)]. In a study, 2 maternal UTI was associated with higher risk of left ventricular outflow tract obstruction and atrioventricular septal defect, and in another research, 4 among 249 babies with gastroschisis and 7104 controls, the risk was found 2.3 times higher in babies of mothers who had urinary tract infections. There is a need for future studies with larger populations to enlighten the association and pathogenesis.

Studies show that women treated with ART are more likely to have children with congenital malformation than fertile women [(5)]. Our study agrees but cannot answer the question of whether the increase in ART and anomalies is related to infertility.

Our findings were similar to previous research in terms of mother's socioeconomic and educational status, however, education or working status of fathers did not affect the frequency of anomalies [(6,7)].

Similar to previous studies, the probability of major anomaly increased significantly as the number of minor anomalies increased [(8-11)]. It is an important finding to alert the clinician to look for major anomalies in children with two or more minor anomalies.

Conclusion: Consanguineous marriages and mothers' low education level are still the major risk factors for congenital anomalies in our hospital. In order to reduce congenital anomalies, increasing the education level of mothers and preventing consanguineous marriages must still be a priority. Research with larger patient population is required to demonstrate involved pathogenesis and the relationship between UTI or ART and congenital anomalies. Clinicians should be cautious on that children with two or more minor anomalies are at greater risk of major anomalies.

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SS43

THE FREQUENCY OF CELIAC DİSEASE İN SIBLINGS OF CELIAC PATIENTS

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Aim: The prevalence of celiac disease (CD) is estimated to be approximately 1% in the world. The prevalence of CD was found to be 2.6-11.9% in the first-degree relatives of celiac patients. There is no consensus on when and how often screening tests for CD should be performed in first-degree relatives of celiac patients.In this study, we aimed to investigate the frequency of CD in siblings of celiac patients.

Material and Metods: This study was conducted between March 2017 and October 2018. This study included 77 siblings of 37 celiac patients. Eight of 37 celiac patients who did not have any complaints refused to participate the study. Tissue transglutaminase antibody IgA (tTG IgA) and total IgA tests were performed to all siblings. The siblings with previously diagnosed celiac disease and those associated with celiac disease such as type 1 diabetes mellitus, Down's syndrome, any autoimmune disease were excluded from the study.

Results: The mean age of 37 celiac patients was 9.5±4.2 years, and the mean age of 77 siblings (39 girls) was 8.8±5.3 years. Of the 62 (80.5%) of the siblings included in the study had no any complaints, 9 of them had growth delay, 2 of them had constipation, 2 of them had abdominal pain, one of them had hepatosteatosis and other one had epilepsy.

The mean level of tTG IgA was 9.8±23.9 U/ml and the mean total IgA level was 116.0±65.3 mg/dl. Four of them (5.2%) had positive tTG IgA antibody. Esophago-gastroduodenoscopy was performed in those siblings. The biopsy results of two siblings were compatible with Marsh 3 and those were diagnosed with CD. The biopsy result of one patient with no complaints was consistent with Marsh 2, and this patient was diagnosed with latent celiac disease. In the other patient, the biopsy result was Marsh 0 which was normal.

Conclusion: 3 of 77 (3.9%) siblings of celiac patients was diagnosed with celiac disease. The risk of CD in the siblings of celiac patients was approximately 8 times higher than in the general population. We recommend that serological screening tests for celiac disease should be performed even if the siblings of celiac patients are asymptomatic. Further studies with more siblings of celiac patients are needed.

Keywords: Celiac disease, intestinal biopsy, siblings

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1. The abstract of this manuscript has been presented as a poster at 52nd Annual Meeting of the ESPGHAN, 5 -8 June 2019, Glasgow.
2. This manuscript is published in the EC Paediatrics 2019; 8: 154-7.

SS44

MANAGEMENT OF COMMON BILE DUCT DILATATION IN CHILDREN

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Purpose: Common bile duct dilatation (CBDD) and its clinical significance in children is a controversial topic because not much research has been done in the pediatric age. Therefore, we investigated the presenting symptom, underlying cause and treatment modalities of CBDD in children.

Methods: In this retrospective study we evaluated 16 inpatients from our pediatric gastroenterology clinic(range10 months-old to 17-year-old) whom dilatation of the common bile duct(CBD) was detected by abdominal ultrasonography(US) at Dr. Behçet Uz Children's Hospital between December 2018 and December 2019. Neonatal cases were not included in the study. No worldwide standards on range of normal size of biliary ducts in pediatric age group have been accepted. İn our study, upper normal limit for the CBD diameter was accepted as 6 mm. US was performed for a variety of signs and symptoms, such as abdominal pain, jaundice, vomiting and fever of unknown origin. We reviewed and analyzed clinical manifestations and treatment modalities in these patients

Results: In total 16 patients (3 males, 13 females) were evaluated. Just one patient was younger than one year. All male patients were older than 10 years. Ultrasound was used in the initial evaluation of all patients. CBD diamer wider than 6 mm was accepted as CBDD. Magnetic resonance cholangiopancreatography(MRCP) was performed in 12 patients. Four patients were diagnosed just with US, three with choledocholithiasis and one was trichobezoar, no further imaging required. Patients were divided into four groups according to treatment modalities. İn the first group 4 patients (25%) had transient abdominal pain without any laboratory abnormalities. These patients had no resolution of CBDD but was not treated because laboratory was normal and they showed a benign clinical course (one was diagnosed with ulserative colitis, one with common variable immune deficiency and two with type 1 choledochal cyst diagnosis). İn the second group, 4 patients (25%; one was diagnosed with postoperative cholangitis, two with cholecystitis and choledocholithiasis, the fourth with acute pancreatitis due to cholelithiasis) required only medical treatment (fluid replacement, antibiotics and/or ursodeoxycholic acid) and showed complete resolution of CBDD after treatment. Third group in which 4 patients (25%) underwent surgical treatment (one had duodenal resection because of duodenal trichobezoar and cholecystectomy was performed in the others with recurrent cholecystitis, choledocholithiasis and cholelithiasis). İn the last group, 4 patients (25%) underwent endoscopic retrograde cholangiopancreatography and were given medical treatment (two with choledocholithiasis, others with autoimmune pancreatitis).

Conclusion: CBDD is a result of a variety of causes. The most common etiology is bile duct obstruction, which may present as acute abdominal pain and/or jaundice, and is revealed by an abnormal liver function test. İn Western countries, like in our study pediatric choledochal cyst is rare and choledolithiasis and pancreatitis are diagnosed much more commonly in pediatric population. However, in East Asia, the most frequent diagnosis in children who are investigated for CBDD for pancreatic and biliary disease is choledochal cyst. İn our study just two cases (12.5%) of type 1 choledochal cyst were dedected and were followed up without any treatment. The other reason of this low rate of choledochal cyst in our study may be because of not including newborns in the study. İncidentally discovered biliary dilatation without any symptoms or abnormalities in laboratory and ultrasound tests in children like our first group, could be defined as primary ductal dilatation and considered a non-pathologic condition. İn our study, 50% of patients with CBDD showed resolution with conservative management. In these patients without any invasive treatment, no pathologic conditions emerged on US during the one-year follow-up period. Symptomatic medical treatment should be considered in patients especially with choledocholithiasis rather than surgery at least as a first step treatment.

No guideline is available as to which imaging we should perform in those patients or which treatment strategy we should choose. More studies about CBDD are needed in pediatric age.

SS45

VOMITING AND DYSPHAGIA WITH ALACRIMA: TRIPLE A SYNDROME

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Introduction: Triple A syndrome (Allgrove syndrome) is a rare autosomal recessive disease characterized by achalasia, alacrima, adrenal insufficiency and progressive neurological disease. Here, we present a case who admitted with dry eye, vomiting and progressive dysphagia for two years and was diagnosed Triple A syndrome.

Case Presentation: A six-years-old girl presented with progressive dysphagia which has been added to the complaint of vomiting that contain undigested food. This complaints have been for two years and gradually increased last 6 months. It was learned that the patient had a recurrent lower respiratory tract infection and was followed up from the ophthalmology due to recurrent keratoconjunctivitis and dry eye. It was learned from family history that fifteen-years-old brother had been applied balloon dilatation due to achalasia when he was 8 years old. Body weight was 16.6 kg (3-10 p), height was 111 cm (10-25 p) and physical examinations were normal. Chest X-ray was normal and the proximal esophagus was dilated, the lumen narrowed in the distal esophagus and the appearance of a bird's beak sign at the level of the lower esophagus sphincter (LES) on the esophagography. Esophageal manometry could not be performed due to the age of the patient. The esophagus was dilated, residual food was seen in the esophagus and LES pressure was increased in the upper gastrointestinal endoscopy. Schirmer test of the patient who diagnosed with achalasia was positive (<5 mm). Serum cortisol level was normal and the patient had no neurological impairments. The patient who was diagnosed Triple A syndrome, has been applied esophageal dilation with a 20 mm pneumatic balloon. The patient's complaints improved after balloon dilatation.

Conclusion: In patients who applied with vomiting, should be investigated for dysphagia and achalasia should be considered. Achalasia can be a component of genetic disorders such as Triple A syndrome. Therefore, long-term and close follow-up of patients is important for detecting clinical signs that concern with multi systems. In addition, family members should also be followed up clinically considering the genetic transition.

Keywords: Vomiting, children, achalasia, Triple A syndrome

SS47

HELİCOBACTER PYLORI INFECTION AND EVALUATION OF TREATMENT RESULTS IN CHILDREN

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Aim: Helicobacter pylori(H.pylori) infection plays an important role in the development of chronic active gastritis, gastritis and duodenal ulcer. Untreated H.pylori infection, may lead to anemia, autoimmune diseases, gastric adenocarcinoma and MALT lymphoma in later years. H.pylori eradication, which has a prevalence of 70-90% in developing countries, is important for the prevention of complications. In this study, it was aimed to evaluate the eradication treatment success, histopathological and clinical recurrence data of children with H.pylori infection.

Method: Patients with upper gastrointestinal system (Gis) endoscopy and histopathologically detected *H. Pylori* gastritis: *H. Pylori* eradication treatment with lansoprazole, clarithromycin, amoxicillin was started and patients who completed their treatment were included in the study. Data were reviewed retrospectively. The patients whose complaints continue after eradication treatment was called "clinical recurrence". Patients who underwent upper GIS endoscopy due to ongoing complaints after eradication and found H.pylori positivity, were defined as "histopathological (real) recurrence".

Results: A total of 178 patients were included in the study. 69.7% were girls and 30.3% were boys, and the average age was 14.33 years. The most common complaints of admission before the treatment were 57.9% nausea, 43.3% dispesia, 33.1% anorexia, 26.4% vomiting, 17.4% sleep-inducing pain and 10.7% weight loss. Anemia was detected in 23.6% of the patients' admission. The mean hemoglobin value was 12.7-1.55. In histopathological evaluation of upper GIS endoscopy, it was observed that H.pylori was detected in 60.7% antrum and corpus, 30.3% antrum, 5.1% corpus and 2.2% duodenum-bulbus-antrum-corpus. Clinical recurrence was 37.1%, histopathological (real) recurrence was 16.9%. Histopathological *H. pylori* gastritis was determined in 45.4% of patients with clinical recurrence. The mean time between *H. pylori* eradication and histopathological recurrence was 15.7 months. After eradication treatment, H. pylori stool antigen test was negative in 41 of 43 patients (95.3%). Clinical recurrence was observed in 28 of these patients and histopathological recurrence in 12 of them.

Conclusion: Resistance to antibiotics used and treatment incompatibility in H.pylori eradication failure are the most important factors. Considering the findings of our study, histopathological H.pylori gastritis was found in some of patients with clinical relapse findings. It is important to give eradication treatment after H. pylori gastritis has been demonstrated by endoscopic biopsy. With this diagnostic method, the development of unnecessary antibiotherapy and resistance can be prevented.

Keywords: Helicobacter pylori, eradication, treatment, recurrence

SS48

GILBERT SYNDROME AND GENETIC FINDINGS İN CHILDREN

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Aim: Gilbert syndrome (GS) is a disease characterized by elevated mild indirect bilirubin levels without hemolysis or a liver disease. It is due to mutation in the UGT1A1 gene, which causes a decrease in uridine diphosphate glucuronyltransferase (UGT) enzyme activity. It is seen with a frequency of 3-13%. Hunger, insomnia, infection and stress can trigger attacks of jaundice. When jaundice is noticed or indirect bilirubin is detected in the tests, it may cause anxiety in parents and children. Many unnecessary tests can be performed on patients for liver disease. Currently, it is easier to reach genetic diagnosis. In this study, it was aimed to evaluate the clinical, demographic and genetic mutations of our patients with GS.

Method: Patients who were admitted to the Pediatric Gastroenterology Clinic between September 2017 and November 2019, and whose were thought GS with clinical and laboratory findings, were included in the study. It was shown that the patients did not have liver and hemolytic diseases that can cause elevated indirect bilirubin. The UGT1A1 gene was performed by Sanger sequence analysis.

Results: A total of 47 children, 37 (78.7%) were male, were included in the study. The mean age was 14.6±2.8 years (min 7-max 18). It was observed that 32 of the cases applied with jaundice and 7 applied with weakness, and 7 of them were found to have elevated bilirubin by incidentally. Total bilirubin mean value 2.4±0.63 mg/dL (min 1.5-max 4.7 mg/dL), indirect bilirubin mean value 1.97±0.59 mg/dL (min 1.1-max 4 mg/dL) was detected. When the trigger causes are evaluated; one case described fatigue and hunger and one case described a history of infection. GS genetic analysis was performed in 41 (87.2%) of the patients. 30 cases with (TA) 7/7, 10 cases with (TA) 6/6, and 1 case with (TA) 6/7 were detected in UGT1A1 promoter region.

Conclusion: In these patients, it is important to consider GS with clinical and laboratory findings in differential diagnosis, and diagnosis can be supported by genetic analysis. The activity of the UGT1A1 enzyme depends on the number of TA repeats. A higher number of TA repeats will result in decreased enzyme activity. Seven or eight TA repeats responsible for the development of GS were detected in the majority of our patients, and it was observed that there was a mild bilirubin elevation in the cases with six repetitions that were considered non-risky in terms of GS. It is important to explain to parents and children that GS is a benign condition and to be informed about the triggering factors that they should be aware of.

Keywords: Gilbert's syndrome, UGT1A1 gene, hyperbilirubinemia

SS49

EVALUATION OF FETAL URINARY SYSTEM ANOMALIES ACCORDING TO OUR PERINATOLOGY DATA

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Aim: Congenital anomalies in fetuses can be diagnosed in the early period due to the increasing perinatal diagnostic opportunities. In this study, we aimed to determine the frequency and features of urinary system anomalies evaluated in our perinatology council, where high risk pregnancies were discussed, and to emphasize the importance of antenatal diagnosis.

Method: This retrospective study included pregnancies with fetal isolated urinary system anomalies who were evaluated at Izmir Tepecik Training and Research Hospital perinatology council between January 1 and December 31, 2019. Perinatal-maternal risk factors, clinical status and council decision were recorded. Statistical analysis was performed using SPSS 20.0 program.

Results: The data of 1272 pregnant women were evaluated and a total of 92 (7.2%) pregnant women with fetal urinary system anomalies were included in the study. The mean age of pregnant women was 27.23±6.23 (17-44) years and the mean gestational week was 23.52±6.77 (11-37) weeks. Of these patients, 10.9% (n=10) of the pregnant women were refugees. The most common urinary system anomalies were pelvicaliectasis/hydronephrosis (n=29; 31.5%), multicystic dysplastic/polycystic kidney (n=19; 20.6%), posterior urethral valve/megasistis (n=18; 19.6%) and renal agenesis/hypoplasia (n=15; 16.3%). Termination decision was obtained for 19.6% (n=18) of the pregnancies but applied to only eight of them. Among the pregnancies which were decided to be continued due to the fact that gestational week was 22 weeks or more, 20.3% (n=20) of the fetuses had urinary anomalies incompatible with life.

Conclusion: It is important to detect congenital anomalies of the urinary system in the fetal period, to present the option of termination to pregnancies in case of an anomaly incompatible with life, and to plan the appropriate follow-up and treatment to other patients. The number of fetuses with urinary system anomalies evaluated at our perinatology council is quite high due to the fact that our hospital's perinatology clinic is a reference center and our newborn unit is a 4th level neonatal intensive care unit. We found that anomalies with high mortality were generally directed after the 22nd gestational week, therefore the termination decision could not be offered to these pregnancies. In terms of early diagnosis and intervention possibility, high-risk pregnancies should be directed to perinatology centers in the early period.

Keywords: Anomaly, perinatology, urinary system

SS51

GRAM NEGATIVE ABSTRACTED FROM BLOOD CULTURES IN NEWBORNS BACTERIAL GROWTH TIMES AND ANTIMICROBİAL RESISTANCE

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Background and Aims: Traditionally, at least 72 hours of empirical antimicrobial therapy has been recommended for infants with suspected sepsis in relation with blood culture results. Blood culture remains gold standard for the evaluation and diagnosis of neonatal sepsis. A large number of newborns evaluated for neonatal sepsis are reported to have no proven infection but continue to receive antibiotics. Inappropriate usage of antibiotics pose the risk of development of multiresistant bacteria. In this study, we aimed to review data from the blood cultures that taken from hospitalized newborns in intensive care unit in a period of two years. Blood cultures were examined in terms of gram negative (GN) microorganisms, time to positivity (TTP), antimicrobial resistance, demographic characteristics of patients and risk factors. It is intended to determine the for time to positivity for GN microorganisms in blood cultures and to estimate the waiting time for negavite results.

Methods: Retrospective review of blood culture results between 1 January 2018 and 31 December 2019 were conducted in a level 4 neonatal intensive care unit located in Dr. Behcet Uz Children's Education and Research Hospital in İzmir, Turkey. Blood culture vials (BD BACTEC™ Peds Plus™/F Culture Vials, Sparks, MD, USA) inoculated with blood specimens obtained from infants suspected of sepsis were incubated in automated microbial detection system which is based of the measurement of carbon dioxide (CO_2) in the medium (BACTEC™ FX Blood Culture System, BD Diagnostic Systems, Sparks, MD, USA) for a maximum of 5 days. We defined TTP as "the time from when the sample is placed in the automated blood culture analyzer to when there is a significant CO_2 change in the culture and the machine flags positive". Positive blood cultures were subcultured to 5% Columbia sheep's blood agar to confirm microbial growth. An automated microbiology system (Phoenix, BD Diagnostic Systems, Sparks, MD, USA) was used for the identification and antimicrobial susceptibility testing of GN bacteria. Demographic characteristics of newborns such as gestational age, gender, birth weight and perinatal risk factors included maternal fever, prolonged rupture of membranes, chorioamnionitis, mode of delivery, meconium aspiration and ressucitation requirement in the newborn were also recorded and analyzed statistically by using of PASW 18 software.

Results: While the positive blood cultures with gram positive bacteria growth (n=159) were excluded, blood cultures with GN bacteria growth (n=86) were taken in consideration. In total, 52 patients had have 67 isolates of enteric gram negative bacilli (EGNB) and 19 non-fermentative gram negative (NFGN) bacteria which of 13 were Pseudomonas aeruginosa strains. The microbial growth for EGNB was occured in the first 14 hours (median 10 hours and 20 minutes) in 89.5% (n=60) and for all of NFGN bacteria growth was recorded up to 21 hours (median 14 hours and 49 minutes). ESBL was found in 50.7 percent of EGNB while the resistance to piperacillin-tazobactam and meropenem was determined as 37.3 % and 9%, respectively. Within Pseudomonas aeruginosa, amikacin resistance in 2 strains, ceftazidime resistance in 11 strains, piperacillin-tazobactam resistance in 3 strains and meropenem resistance in 4 strains were found.There was no significant relationship with risk factors and microbial growth of EGNB and/or NFGN bacteria.

Conclusion: Decision making for the choice of appropiate antibiotics and the duration of emphirical therapy is a major challenge for hospitalized patients and microbial growth in blood cultures must be taken in consideration. As being foremost reason of mortality in newborns with suspected sepsis, attention must have been paid to TTP and resistance patterns of EGNB and NFGN bacteria in blood cultures. In our study the relatively short TTP, presence of ESBL and carbapenem resistance are considerable. Emergence of carbapenem resistant strains of GN bacteria in neonatal intensive care units had been reported in several studies. The evaluation of aetiological trends, TTP and antimicrobial resistance patterns is important in newborns suspected with sepsis. With the improvement of automated blood culture systems TTP has been shortened. According to our study results, it may be safe to shorten the duration of the emphiric antimicrobial theraphy to solely target GN bacteria. We conclude that it would not be necessary to wait the microbial growth for GNB in blood cultures more than 3 days if a reliable automated blood culture system is used. It is crucial to survey of TTP in blood cultures and antimicrobial resistance patterns of isolates for every clinical unit for improvement of the antimicrobial policies in hospitalized patients and infection control.

SS52

COMPARISON OF MORBIDITY AND MORTALITY OF LATE PRETERM, EARLY TERM AND FULL TERM INFANTS

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Introduction: Late preterm (LPs) and early term infants (ETs) may have higher morbidity and mortality rates than full term infants (FTs) for their immaturity.

Aim: To determine prenatal, natal and postnatal risk factors, morbidity and mortality in LPs compared to ETs and FTs.

Methods: All LPs and consecutive third and fourth term infants born at the Dr. Sami Ulus Children's and Maternity Hospital, Ankara, Turkey, between January-December 2012 were included to this case-control retrospective single-center study. We classified all term infants into ETs and FTs. Risk factors, morbidity and mortality were compared between LPs, ETs and FTs.

Results: The study included 162 LPs, 140 ETs, and 172 FTs. Maternal smoking, PROM, IVF pregnancy and C/S delivery rates were higher in LPs compared to FTs ($p<0.05$). LPs (44.9%) and ETs (10%) were admitted to NICU 11,9 and 1,6-fold compared to FTs, respectively. Transient tachypnea of the newborn and pneumonia were higher in LPs compared to ETs and FTs ($p<0.05$). Hypocalcemia, hypoglycemia, feeding problems, sepsis and IHB were found more frequent in LPs than ETs and FTs ($p<0.05$). LPs (12.2%) had a higher rehospitalization rate after discharge compared to FTs (2.9%) ($p=0.003$). There was no significant difference between ETs and FTs in terms of postnatal problems and hospital readmission rate ($p>0.05$).

Conclusion: LPs have an increased risk of respiratory, metabolic, gastrointestinal and infectious problems and higher rates for hospital readmissions and mortality. It was not shown a significant difference between the ETs and FTs in this study. Our results emphasize the risk factors and the need to set up better strategies to prevent LPs and improve the outcomes of these neonates.

SS53

COMPARISON OF THE DATA OF INFANTS THAT UNDERWENT TREATMENT DECISION DUE TO RETINOPATHY OF PREMATURITY İN THE SECOND AND THİRD STEP NEONATAL INTENSIVE CARE UNITS

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Introduction: Retinopathy of prematurity (ROP) is a neovascular retinal disease of premature newborns. ROP is a leading cause for infancy blindness both in developing and developed countries.

Method: This study was conducted at the Ophthalmology and Neonatology departments of Dr. Behçet Uz Children Education and Research Hospital, all infants admitted during 2019 were enrolled in this retrospective study. ROP examinations were performed babies that one of ROP examination indications (<32 gestation weeks, <1500gr birth weight or 32-37 gestation weeks but had risc factors for ROP). ROP staging was classified according to the International Committee for the Classification of ROP (ICROP) criteria. Laser treatment performed to babies with type-1 ROP and intravitreal anti-vascular endothelial growth factor (anti-VEGF) performed to babies with APROP. In 2019, babies whose treatment decisions were made due to ROP; birth weight (BW), gestation weeks (GW), corrected ages when treatment and duration of taking O_2 were compared according to the step of hospitals they were hospitalized.

Results: Treatment was decided for 60 eyes of 30 babies due to ROP. It was observed that three of them were followed up in the 3rd step and 27 of them were followed up in the 2nd step hospital. It was observed that all babies in the third step were treated with the diagnosis of type-1 ROP. GW of these 2 babies were 26 weeks, 1 baby's GW was 25 weeks. The mean BW was 923±117 gr, the mean O2 taking time 63±25 days and the mean corrected age when receiving treatment due to ROP was 37±1 week. Twenty-five of the 27 babies who were followed up in the 2nd step hospital were diagnosed with type-1 ROP and 2 babies were diagnosed with APROP. In the second step hospitals, the mean BW was 1264±408 g, the mean GW was 29.37±2.64w, the mean O_2 taking time was 50.74±22 days and the mean corrected age when receiving treatment due to ROP was 39.29±3.27 week. Among the patients who were decided to be treated, the highest GW was 34 weeks, and the largest BW was 2025 g.

Discussion: ROP is a retinovascular disease. The most important risc factors are BW, GW and O_2 treatment. Laser and anti-VEGF have similar efficacy in type-1 ROP, while relapse is less with laser. In APROP, the clear superiority of anti-VEGF has been demonstrated. In this study, laser was proposed to type-1 ROPs and anti-VEGF to APROPs. Although the mean time to receive O_2 in the 3rd step hospital is longer, the GW and BW of these babies receiving ROP treatment are lower. The reason for this probably is the O_2 controlled way is more determinant than the O_2 usage period. Tarah et al also reported standardized protocol to deliver targeted supplemental oxygen was an effective method of decreasing the progression of active ROP. This study also supported our results.

Conclusion: In third step hospitals, GW and BW of babies who were decided to treat were found to be significantly lower second step hospitals.

SS57

SURFACTANT TREATMENT İN NON-RDS NEONATAL DISEASES

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Introduction: Today, outside surfactant application to newborn babies and especially premature babies has been an important part of neonatal therapy. Since the beginning of 1990h, surfactant has begun to be applied in the treatment specially RDS and meconium aspiration syndrome (MAS). In this study, short-term results of surfactant treatment given in cases other than respiratory distress syndrome were examined.

Method: The patients who were born between 2016-2019 and over 34 weeks of gestation were included in the study because of respiratory distress. How many doses of patients received from surfactant, type of surfactant preparation, duration of intubation and hospitalization, complications related to the application effects on blood gas parameters, indications for administration, relationship with mortality were investigated.

Result: It was noted that 428 patients were administrated surfactant therapy between dedicated years. The mean gestational week and birth weights of the patients who were included in the study were founded as 36.9±1.67 and 2902.5±584 grams. Among patients who were included was discovered that 28 of them have pneumonia, 12 of them have meconium aspiration, 6 of them have transient tachypnea of newborn and 5 of them have cardiopathy. In terms of demographic characteristics, there was no difference between the groups in the surfactant indications and doses. It is identified that there was no difference between blood gas parameters among the groups. There was a significant relation between mortality and multi-dose surfactant administration (p=0.006).

Conclusions: We think that surfactant replacement may be life saver in the neonatal diseases other than RDS such as pneumonia, MAS and sepsis by rapidly improving oxygenation. Further investigation is necessary to validate the significance of expanded use of surfactant.

SS56

DETERMINATION OF THE FREQUENCY AND RISK FACTORS OF LOWER RESPIRATORY TRACT INFECTIONS IN BABIES DİSCHARGED FROM THE NEONATAL INTENSIVE CARE UNIT WITH PALIVIZUMAB PROPHYLAXIS

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Introduction: Establishment of modern perinatal and neonatal intensive care units ensure that most babies who are at risk are alive. Risky babies discharged from the neonatal intensive care unit are required to have long-term follow-up due to their numerous problems such as respiratory problems, growth, nutrition, neurodevelopmental problems, vision and hearing problems. When looking at the reasons for re-hospitalization, respiratory tract diseases take the first place. As a matter of fact, in a study conducted in infants with chronic lung disease; In the first two years of life, hospitalization rate increased up to 40% due to lower respiratory tract infection[3]. Regarding the factors of lower respiratory tract infection, RSV infection is frequent especially in the first year of life. Infants who are considered to be at risk are treated with palivizumab prophylaxis at discharge from the neonatal intensive care unit, which may decrease the frequency of hospitalization. In this study; We aimed to determine the frequency of hospitalization, factors and risk factors due to LRTI during the first two years of life in babies discharged from the neonatal intensive care unit with palivizumab prophylaxis.

Method: In our retrospective study, Health Sciences University Izmir Dr. Med. Behçet Uz Pediatric Diseases and Surgery Training and Research Hospital 558 patients who were admitted to our neonatal intensive care unit and were included in the palivizumab prophylaxis program during discharge were included Statistical analyzes were done in SPSS 20.0 program using independent samples t test and chi-square test. P value less than 0.05 was considered statistically significant.

Findings: 252 (45%) of 558 patients who were included in the study and included in the palivizumab program were excluded from the study because 40 of them did not comply with prophylaxis, 80 were ill outside the season and 40 did not come to the controls. It was observed that 80 of 186 patients in the study group had hospitalization due to LRTI and 106 patients did not require hospitalization. When the reasons for the report of the cases in terms of palivizumab are examined; It was seen that 69% were taken to the prophylaxis program due to prematurity, 19% to congenital heart disease and 10% to chronic lung disease. In the respiratory PCR evaluation of the patients who were hospitalized and had severe respiratory symptoms; Non-RSV factors (the most common influenza) were detected in 84%. Considering the risk factors, it was observed that the patients who were hospitalized due to LRTI had a longer oxygen uptake period, and bronchodilator and steroid use was higher at discharge.

Result: In this study, which aims to investigate the frequency of hospitalization and hospitalization of babies who are discharged from the neonatal intensive care unit in autumn and winter seasons where respiratory tract infections are common and to evaluate the perinatal risk factors that prepare the ground for respiratory infection, palivizumab prophylaxis in 558 babies discharged from the Neonatal Intensive Care Unit The compliance was determined as 45.6%, 69% of the cases were included in the prophylaxis program due to prematurity and 43% of these babies were hospitalized due to lower respiratory tract infection after discharge. Palivizumab prophylaxis has been reported to reduce RSV-related hospitalizations by 55%. In another study, it has been shown that palivizumab prophylaxis reduces RSV-related hospitalization by 45% in infants with hemodynamically significant congenital heart disease. In our study, it is not possible to say that all of the hospitalizations are RSV related, since RSV research is not routinely performed in all patients who need hospitalization. However, in respiratory PCR evaluations, only 16% of the factor was found to be RSV. Therefore, attention should be paid to compliance with palivizumab prophylaxis. However, the fact that the pathogen in the etiology was not screened routinely in both outpatient and hospitalized patients was the most important limitation of our study. Influenza takes the first place in agent investigations. This situation reveals that more importance should be given to influenza vaccination in infants who are at risk.

Conclusion: As a result, it was found that the risk of lower respiratory tract infections and associated hospitalization after discharge was high in risky babies. It has been concluded that detecting babies at risk of lower respiratory tract earlier by taking appropriate preventive measures and prophylaxis will reduce lower respiratory tract infections and related hospitalizations.

SS58

EVALUATION OF ETHIOLOGICAL REASONS AND FOLLOW-UP RESULTS IN PATIENTS DIAGNOSED WITH PROLONGED JAUNDICE

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Aim: Prolonged jaundice is one of the most common reasons for neonate admission to polyclinics. It affects 2-15% of all neonates and about 40% of breastfed neonates. As it can be the first indication of a serious pathology and investigations to determine the ethiology and the follow-up process worries the families, the follow-up of neonates with prolonged jaundice must be done carefully. In this study, determination of ethilogical reasons we found in neonates with prolonged jaundice and determination of factors during the follow-up that can be effective on the prolonged jaundice duration is aimed.

Method: In our study, files of 112 term nenotes (gestation period of 37 weeks or more) who applied to Mustafa Kemal University Pediatrics Polyclinic and were diagnosed with prolonged jaundice between January 2017 and June 2019 are evaluated retrospectively.

Results: When the results are evaluated; rates of ethiological reasons are determined respectively as late breast milk jaundice in 63 cases (56.3%), ABO incompatibility in 17 cases (15.2%), Rh incompatibility in 6 cases (5.4%), urinary tract infection in 11 cases (9.8%), congenital hypothyroid in 5 cases (4.5%), G6PD enzyme deficiency in 7 cases (6.3%) and sepsis in 3 cases (2.7%). In our study we found that weight gain, educational level of mother and being treated with intravenous immunoglobulin due to blood incompatability were effective on the duration of prolonged jaundice. It is shown that high educational level of mother and weight gain more than 30 gr/day have positive effect on earlier amelioration of prolonged jaundice.

Conclusion: Prolonged jaundice generally shows good prognosis but requires follow-up. Ethiology must be determined because it may be an indication of a serious underlying disease. Although breast milk jaundice is the most common reason, breast feeding must be continued. It is seen that good weight gain has a positive impact on prolonged jaundice. Exclusively breastfed babies who have prolonged jaundice need adequate feeding support.

Keywords: Neonate, prolonged jaundice, ethiological reasons

SS59

IMPACT OF GESTATIONAL WEEK ON RED CELL DISTRIBUTION WIDTH IN NEWBORNS

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Introduction: Red cell distribution width (RDW) is a measure of erythrocyte size variation. Traditionally, RDW has been used for the differential diagnosis of anemia [(1)]. Recently, attention has been drawn toward the prognostic value of RDW in critically ill adults [(2)]. Further, elevated RDW has been shown to be associated not only with outcome prediction in pediatric critical illness but also provides prognostic information comparable to the more complex Pediatric Index of Mortality (PIM)-2 score. Distinct RDW thresholds help in discriminating between low-risk and high-risk patients in the pediatric population [(3)]. A previous study has shown some clinical value of RDW measurements to predict disease severity in critically ill neonates [(2)]. However, reference intervals for hematologic laboratory parameters like RDW in neonates are different from those of the pediatric population. Further, RDW values have been reported to be different in neonates with fetal growth restriction (FGR) or prematurity, but there is insufficient evidence that these parameters directly alter the RDW values [(4)]. Hence, the aim of this study is to investigate the effects of gestational week on RDW values in newborns.
Methods: This retrospective study was performed in newborns admitted to the Neonatal Intensive Care Unit between 2017 and 2019. Any infant from birth to three days of age was included in the study. The following data were noted: gestational age, birth weight, sex, hemoglobin (Hb), hematocrit (Hct) mean corpuscular volume (MCV) and RDW values. We excluded those neonates who had congenital diseases, neonates born to mothers with moderate to severe anemia (Hb<8g/dL), maternal medications affecting the fetal hemopoietic system. Gestational age was calculated based on the date of last menstrual period and the Ballard score. Infants with a birth weight less than the 10th percentile were classified as small for gestational age (SGA). The study population was divided into 2 groups as per their gestational age. The full term group consisted of patients at 37 weeks and above of gestation, whereas the preterm group below 37 weeks of gestational age. RDW values were compared in the both groups.
Results: A total of 485 neonates (273 male neonates and 212 female neonates) were included in the study. The mean gestational age, birth weight, Hb, Hct, MCV and RDW of all newborns were 35.6±3.98 weeks, 2623±888 g, 17.4±2.6 g/dl, 51.6±7.8 %, 107±8.95 fL and 15.93±1.42 respectively. Full term group consisted of 250 neonates and preterm group consisted of 235 neonates. No differences in the mean Hb (g/dL) and hematocrit (%) values were detected (17.3±2.6 vs 17.4±2.6 g/dL, 51.4±7.9 vs 52±7.7%, respectively, p>0.05). The mean corpuscular volume (fL) values showed significant differences between the groups (105.2±6.4 vs 108.9±10.7 fL, p<0.01). The mean RDW values in preterm group (16.1±1.52) were significantly higher than in full term group (15.8±1.3) with a P<0.05. A total of 31 neonates (6.4%) were SGA among the study population, with full term group comprising a total of 18 SGA neonates, whereas preterm group comprised a total of 13 SGA neonates. There was no difference in RDW values between the SGA and the AGA groups (p>0.05).
Discussion: Reference intervals of laboratory values during the neonatal period are different from those of adult and children and they change considerably with prenatal condition, in particular prematurity is a significant variable. Thus, specific ranges are important for neonatal monitoring and diagnosis, on the other hand it is difficult to obtain samples from neonates because of ethical implications and for the paucity of available biological samples. Measures of RDW do not require extra samples and this parameter is routinely given with complete blood count (CBC), since CBC itself is frequently required for clinical management. In newborns, the normal values of RDW have been previously found higher than those of other children groups, but the normal values in preterm infants are lacking with few reports [(5)]. In the present study, our results indicated that RDW values are different among gestational ages and gestational age affects the RDW values. The mean values of RDW were significantly higher in preterm group than full term group. We think that instable erythropoiesis and stress condition is reflected in the higher RDW values in preterm infants. In conclusion, during the newborn period, the normal range of RDW differs among newborns in terms of gestational age. Additionally, our results suggest that RDW values should be evaluated according to these specific results for diagnosis of newborn disease without respect to adult or child values.

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SS60

THE RETROSPECTIVE ANALYSIS OF CASES WITH ACUTE RHEUMATIC FEVER

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Introduction: Acute rheumatic fever (ARF) is still an important cause of morbidity in Turkey. Valve replacement must be considered in some patients with severe valve regurgitation. In this study it is aimed to retrospectively evaluate the patients, who were diagnosed as acute rheumatic fever.

Method: The cases with acute rheumatic fever had been screened from hospital computer record system between the years September 2017 and April 2019.

Results: 32 patients had been diagnosed as ARF in this period. The mean age was 13.35±4.68 (7-18 years). Severe mitral regurgitation (MR) with 1°-2° aortic regurgitation(AR) had been established in 4/32(12,5%) patients. 2/4 had been followed in intensive care unit(ICU) with the clinic of lung edema, severe heart failure due to severe valve regurgitation. ½ patient had been intubated and mitral valve replacement had been done in this patient as the symptoms went worser despite of medical therapy. Although not completely resolved, the symptoms had regressed after steroid therapy in the rest ¾ patients and they didn't need valve replacement. 1 of 4 patient had supraventricular tachycardia attack. Medium MR and 1° AR had been establised in 8/32(25%) patients in whom steroid therapy had also been started. 1/8 patient had a second attack (recurrens) because of not adapting regular depocilin prophylaxis treatment. There was mild cardiac involvement (1°MR and±trace AR) in 11/32 (34,3%) patients. And in the rest of patients (9/32- %28,1) there was only polyarthritis. 20 patients with mild carditis and/or arthritis who were treated outpatiently, had been given oral ibuprofen due to not able to monitorizate the effects of salicylate therapy which can cause serious gastrointestinal symptoms. On the other hand 6/20 patients had been hospitalized and given salicylate therapy because of the risk for incompatibility in the outpatient treatment due to familial factors. Acute phase reactans decline and clinical improvement had been established in both treatment groups with salicylate and ibuprofen. There was elevation of in liver function results (ALT>1000U/L) in 2/6 patients at the third day of treatment who had been given salicylate therapy. Encountering the patient in whom a new metalic valve was replaced, this patient had applied to clinic lately (2 weeks after beginning of symptoms) according to the other 4 patients with severe carditis. Accompaniment of AR was significantly higher in patients with severe or medium mitral regurgitation than the ones with mild regurgitation or only with arthritis (12/12-5/20).

Conclusion: Severe valve damages in ARF can be prevented by early diagnosis and treatment. Symptoms and findings of severe valve regurgitation can regress by antiinflammatory therapy. Another non steroidal antiinflammatory therapy apart from salicylate can provide clinical and laboratuary improvement.

Keywords: Acute rheumatic fever, heart failure, valve replacement

SS61

THE RELATIONSHIP OF VENTRICULAR REPOLARIZATION PARAMETERS WITH CARDIAC İNVOLVEMENT İN PATİENTS WITH THALASSEMIA MAJOR

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Objective: Thalassemia major (TM) is an autosomal recessive inherited chronic hemolytic anemia which occurs as a result of the defect in the beta globin chain. Regular blood transfusions and chelation treatments are required. Despite chelation, findings related to iron accumulation may develop in the follow up. Cardiac complications related to iron deposition are the most important cause of morbidity and mortality. Electrocardiography (ECG) is a good non-invasive method in order to show cardiac efficacy in th early perirod. In our study, we aimed to evaluate the parameters of atrial depolarization (PWd) and ventricular repolarization (QT, QTc, Tp-e intervals, Tp-e dispersions and Tp-e/QT ratio) in TM patients.

Method: In this prospective study, 52 children-young adolescents with TM diagnosisi and 43 healthy volunteers of the same age-gender were included. Electrocardiography and echocardiography were performed to both groups. PWd, QTc, QTd, Tpe/QT max Tpe/QT min values were calculated on ECG. In patients with thalassemia major, the relationship of iron load in cardiac T2MR and blood ferritin values with these ECG parameters were evaluated.

Resuts: No significant difference was detected in age, gender, and blood pressure levels between the groups (Table 1). Atrial depolarization parameter PWd and ventricular repolarization parameters including QT, QTc, Tp-e intervals and Tp-e dispersions and Tp-e/QT ratio were significantly prolonged in TM patients compared to healthy controls. Cardiac T2 MRI iron in TM group was found to be <20 msec in 16.2% of patients and >20 msec in 77.2% of them. We could not find a relationship between iron load and blood ferritin level in cardiac T2MR and these parameters.

Discussion: In this study, we found that the parameters of atrial depolarization and ventricular repolarization were significantly longer in TM patients than healthy controls. These parameters were not related to the iron load in the cardiac T2MRG. Our knowledge, this study is the first study in pediatric patients investigating the electrocardiographic markers of atrial and ventricular arrhythmias and their relationship with cardiac iron overload. Due to the long life expectancy, children with TM may be considered at risk of developing some arrhythmias. Therefore, careful evaluation of these parameters is necessary in children with TM. Further long-term prospective electrophysiological studies are needed to demonstrate clinical and prognostic implications of these parameters.

Keywords: Thalassemia major, electrocardiography, QTc

SS62

USE OF THE MODIFIED MYOCARDIAL PERFORMANCE INDEX FOR EVALUATING FETAL CARDIAC FUNCTIONS IN GESTATIONAL DIABETIC PREGNANCY BABIES

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Objective: The aim of this study is assessment of importance of the use of myocardial performance index for the evaluation of fetal cardiac function in babies from mothers with gestational diabetes mellitus.

Methods: In this study, data of 35 pregnant patients aged 18-45 years diagnosed with gestational diabetes (GDB) and 35 pregnant women aged 18-45 years with normal pregnancy (without glucose intolerance) and their babies were evaluated. Fetal echocardiographic and doppler measurements, fetal biometric measurements, umbilical artery and ductus venosus pulsatility indexes were measured in both gestational diabetic and control groups.

Results: The umblical artery pulsatility indexes and ductus venosus pulsatility indexes of the patients and the control group included in the study were compared and there was no statistically significant difference between the two groups (p=0.849, p=0.485). Systolic functions (Fractional shortening=FS) of all groups were normal and similar (p=0.770). The rates of E wave velocity, A wave velocity of the mitral valve were statistically different between the groups (p=0.071, p=0.021, p=0.106) but isovolumetric relaxation time (IVRT) and isovolumetric contraction time were statistically significant difference between the two groups (p=0.006, p=0.030). The Tei Index (MPI) calculated according to Pulse Doppler measurement results was statistically different between the groups (p=0.000). The need of hospitalization in the postpartum period was more frequently observed in GDB than the control group (p=0.014). Delivery type and 5 minute Apgar score were no statistically significant different between the groups (p=0.060, p=0.587).

Conclusion: In our study, although the E/A ratio reflecting diastolic functions was similar between the groups. MPI, which was independent of the ventricular anatomy and fetal heart rate, showing both diastolic and systolic functions, was significantly higher in GDB. MPI is a simple and useful method for assessing fetal ventricular functions. it is advisable to perform routinely MPI measurement with other fetal cardiac-measurements.

Keywords: Fetal heart, gestational diabetes mellitus, myocardial performance index

SS63

A CONCERNED CAUSE OF CHEST PAIN: ACUTE MYOPERICARDITIS, AN ANATOLIAN CENTRAL EXPERIENCE

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Introduction: Chest pain in children must be evaluated for acute myopericarditis (AMP). The data about exact incidence, etiology, natural history and outcomes of AMP are scarce and there is not a treatment algorithm. Children with AMP must be evaluated with serial measurement of myocardial injury enzymes, ECG, echocardiography. In this study, we aimed to evaluate the management, follow-up and knowledge gaps of AMP in children.

Method: This retrospective study reviewed children who were diagnosed as AMP between 30th September 2016 and 30th November 2019. Chest pain and elevated troponin I (TnI) defined as AMP. Patients with congenital heart disease, coronary artery anomaly, acute chest trauma, myocarditis and pericarditis were excluded.

Results: 54 children (F=14, M=40) were studied and median age, body mass index, blood pressures and heart rate were found as 12 years, 21.4, 114/71 mmHg and 87, respectively. Symptoms were chest pain (80%), palpitation (13%), abdominal pain and nausea (7%). Initial TnI levels were 2-90 times higher than normal. In 9 cases, pro BNP was >100 pg/ml. ECG showed ST elevation (75%), supraventricular (9%) and ventricular premature beats (5%). One patient died with ventricular tachycardia (VT). Echocardiography showed decreased ejection fraction (EF) (11%), mitral insufficiency (14%) and mild pericardial effusion (7%). Coronary angiography was performed in 2 cases and found normal. In addition to non-steroid anti-inflammatory drugs (NSAİD), 6 patients required inotrop. Hospital stay time was 4-14 days. TnI levels normalized in 2-10 days.

Discussion: Data about AMP are stil scarce and a standardised work-up is absent in children. In our study, most of the cases were male adolescents (74%) concordant with the previous reports. Body mass indexes were normal, suggesting that body weight is not associated with AMP. TnI is a sensitive marker for myocardial injury and all patients had elevated TnI in our study. Nonspecific ECG signs were present in our study similar to previous reports. Echocardiography was the primary imaging method in our study. Coronary angiography was found normal in 2 cases who had persistent troponin I increase and ST elevation. Although there is not a concensus about indications of coronary angiography for children with AMP, we think that it is unuseful in children with AMP. Despite the lack of specific therapies, rest and empirical NSAİD are strongly recommended in AMP. In this study, 6 patients required inotropic [dopamine (n=2), milrinone (n=4)] support in addition to rest and NSAİDs. TnI may remain increased for 7-10 days after myocardial necrosis. In our study, troponin I levels normalized in mean 3 days (2-10 days). Complete recovery observed at all except one who died due to VT.

AMP should be considered in children in case of chest pain, palpitation and increased TnI. ECG, echocardiography and TnI are very helpful in the follow-up of these patients. Although the majority of cases completely recover, children who were diagnosed as AMP should be carefully monitored for sudden fatal arrhythmias in hospitals.

SS64

EFFECT OF ANTENATAL DIAGNOSIS ON MORTALITY IN CRITICAL CONGENITAL HEART DISEASES

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Purpose: In this study, it was aimed to determine the effect of prenatal diagnosis on neonatal mortality among prostoglandin dependent congenital heart diseases (CHD).

Methods: The medical records of neonatal cases who were born and hospitalized, with a diagnosis of prostoglandin dependent CHD with fetal echocardiography (ECHO), in our hospital between March 2016 and December 2018, were evaluated retrospectively. Cases with ventricular septal defect pulmonary atresia (VSD-PA), transposition of the great arteries (d TGA), aortic arch obstructions (aortic interruption critical aortic coarctation), left heart obstructive lesions (hypoplastic left heart syndrome) and single ventricular physiology - pulmonary atresia diagnosis were included to the study. The diagnosis of the patients were confirmed by postnatal ECHO. Cases that were not prostoglandin-dependent in postnatal ECHO and those with missing medical data were not included to the study.

Results: In this retrospective study, the data of 25 cases were evaluated. The mean birth weight was 2839±821 grams and the mean gestational age was 37±2.4 weeks. The diagnosis of the patients were HLHS (42.3%), single ventricular pulmonary atresia (15.3%), aortic coarctation (15.3%), d TGA (11.5%) and VSD-PA (11.5%). The mean oxygen saturation level was 83±8% and the mean operation time was 6.1±5 days. Of the patients, 42% of the cases died during the neonatal period. The length of hospital stay was between 1 to 190 days.

Conclusion: Critical CHDs can cause high mortality in the postnatal period with the closure of the ductus arteriosus. Although our patients were diagnosed with fetal ECHO, to our opinion, the high mortality rate may be due to the high number of patients with HLHS syndrome. In addition, associated anomaly and malformation rate (20%) was high in our cases. Different results have been obtained in studies in which the effect of antenatal diagnosis on neonatal mortality in CHDs was investigated. In our study, although a comparison could not be made due to the fact that all cases had an antenatal diagnosis, but antenatal diagnosis provides significant benefit in terms of patient stabilization in the preoperative period.

Keywords: Fetal echocardiography, newborn, critical congenital heart diseases

SS65

IS 21 ALPHA HYDROXYLASE DEFICIENCY AND HYDROCORTIZONE THERAPY ASSOCIATED WITH ATRIAL AND VENTRICULAR ARRHYTHMIAS?

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Aim: It is an autosomal recessive disease characterized by congenital adrenal hyperplasia, cortisol and mineralocorticoid deficiency and androgen excess due to 21 alpha hydroxylase deficiency. There are limited studies on the effect of 21 alpha hydroxylase deficiency on atrial and ventricular arrhythmias. In this study, the effects of 21 alpha hydroxylase deficiency and hydrocortisone treatment on electrocardiographic parameters such as pwd, QT interval, QTd, Tp-e interval, Tp-e/QT and Tp-e/cQT ratio in children with 21 alpha hydroxylase deficiency. It was aimed to be compared with healthy children in terms of weight, height and body mass index parameters.

Methods: Twenty-one patients with alpha hydroxylase deficiency and 25 healthy subjects were included in the study in an observational, cross-sectional, controlled trial. Anthropometric measurements, systolic and diastolic blood pressure measurements, biochemical analyzes and electrocardiographic measurements of all cases were performed. Electrocardiographic parameters such as pwd, Qt interval, Qtd, tp-e interval, tp-e/Qt and tp-e/Qtc ratio were calculated with a standard 12-lead ECG.

Results: There was no significant difference between the groups in terms of age, gender, weight, height and body mass index parameters (median age 112.8 (90.4) and 80.7 (109.5) months), mean weight 37.6±21.5 kg and 27.9±18.3 kg, mean height 125.4±28.9 cm and 114.7±31 cm and mean BMI. 21.4±5.7 vs. 18.9±3.4 kg/m^2). Systolic blood pressure was significantly higher in children with 21 alpha hydroxylase deficiency. There was a statistically significant correlation between systolic and diastolic blood pressure and the duration of hydrocortisone treatment (r=0.54, p=0.005 ve r=0.46, p=0.01). Compared to the control group, P and Tpe wave dispersion was significantly higher in children with 21 alpha hydroxylase deficiency.

Conclusion: This study shows that p and Tpe wave dispersion is increased in children with 21 alpha hydroxylase deficiency. In children with 21 alpha hydroxylase deficiency, disease and hydrocortisone therapy may be risk factors for atrial and ventricular arrhythmias.

Keywords: Atrial arrhythmias, congenital adrenal hyperplasia, hydrocortisone therapy, ventricular arrhythmias

SS66

EVALUATION OF CARDIAC FUNCTIONS OF CHILDREN WITH CELIAC DISEASE

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Objective: In this study, we aimed to investigate the effect of celiac disease (CD) on myocardial functions and aortic elasticity parameters.

Method: Along with 30 CD patients, 30 healthy children with similar age and sex were included in the study. Cardiac functions of all children in the patient and control groups were evaluated by conventional echocardiography and tissue doppler imaging (TDI). Aortic strain, distensibility and stiffness index (SI) were calculated by M-mode echocardiography.

Findings: The demographic data, height, weight and body mass indexes of the patient group were similar to the control group. The systolic functions (ejection fraction) of the patient and control groups included in the study were normal and similar (p=0.910). For conventional and TDI measurements of mitral valve, there was no statistical difference between E wave velocity, early diastolic current peak velocity, A wave velocity, late diastolic current peak velocity, and E/A ratio. The rates of isovolumetric relaxation time (IVRT) and isovolumetric contraction time (IVCT) were statistically different between the groups (p=0.000, p=0.000, p=0.000). The Tei Index (MPI) calculated according to the Pulse Doppler measurement results was statistically different between the groups (p=0.000). There was no statistical difference between the groups in terms of aortic strain, distensibility and SI.

Conclusion: In this study, it has been shown that myocardial functions of children with CD are affected globally. For this reason, celiac patients should be monitored early due to the increased risk of cardiac exposure and should be routinely evaluated in terms of cardiac function.

Keywords: Celiac disease, tissue doppler echocardiography, Tei index

SS70

EVALUATION OF PATIENTS WITH ACUTE RHEUMATIC FEVER: A SINGLE CENTER EXPERIENCE

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Aim: Acute rheumatic fever (ARF) is a connective tissue disease involving joint, heart, skin and nervous system that occurs after group A streptococci (GAS) pharyngitis. It is also the most common acquired heart diseases in the childhood. In this presentation, we aimed to evaluate the patients who were followed up and treated with ARF.

Methods:15 patients diagnosed with ARF between April 2017 and December 2019 were retrospectively analyzed in the Mersin City Training and Research Hospital. ARF is diagnosed according to the modified Jones criteria. Major criteria are arthritis, carditis, chorea, erythema marginatum and subcutaneous nodules. And minor criteria are fever, arthralgia, PR interval, and laboratory findings showing acute infection. While there were 2 major or one major criteria with two minor criteria in the previous diagnosis of streptococcal infection, ARF was diagnosed.

Results: Nine of our patients was female (60.0%) and the mean age was 11.1±3.1 years. The most common presenting complaint was arthritis (73.3%). The most common major finding was carditis (100.0%). The most common minor signs were arthralgia (80.0%) and fever (73.3%). In addition to that, two patients had severe back pain (13.3%). Chorea was seen only in two patients. All patients except one had aortic insufficiency (AI) and mitral insufficiency (MI). One patient had only minimal MI. The higher rate of sedimentation was determined in 14 patients, and higher levels of CRP were detected in 13 patients. Only three patients had leukocytosis. Salicylates 90-100 mg/kg/day (max 4 g) was initiated to all patients diagnosed with mild and moderate carditis for 4 weeks and gradually decreased and discontinued in 6 weeks. Steroid therapy was started as an initial therapy at a dose of 2 mg/kg/day (max 60 mg) in only one patient with severe carditis.

Conclusions: Echocardiography is being used more frequently especially in the differential diagnosis, follow-up and prognosis today. In recent years, the detection of silent carditis is increased in the diagnosis of ARF due to the echocardiographic screening programs. If the patient does not fully meet the modified Jones criteria and no other diagnosis is considered, it has been recommended that the patient should be followed up and treated like ARF. After 12 months of benzathine penicillin prophylaxis, the patient should be re-evaluated and whether the prophylaxis is stopped or not. The diagnostic criteria of ARF are valid for the acute period of the disease, those criteria are not valid in the diagnosis and follow-up of rheumatic heart disease.

Keywords: Acute rheumatic fever, arthritis, carditis, children

SS71

RELATIONSHIP BETWEEN INITIAL CLINICAL FINDINGS AND RENAL INVOLVEMENT IN PEDIATRIC PATIENTS WITH HENOCH SCHONLEIN PURPURA

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Aim: This study aimed to assess the clinical characteristics of pediatric patients with Henoch-Schönlein purpura (HSP) and determine the relationship between the severities of skin, gastrointestinal, joint and renal involvement.

Materials and Methods: This prospective cross-sectional study was performed on 74 children with HSP by history, physical examination, laboratory measurements, treatment and response to follow-up. System involvement of patients was classified as skin, kidney, gastrointestinal and joint involvement.

Results: 45.9% of the cases were female and 54.1% were male. There was a statistically significant correlation between the severity of arthritis and renal involvement during the first month ($p<0.05$). A significant correlation was found between the severity of abdominal pain and renal involvement in the first month ($p<0.05$). It was observed there was a significant correlation between the response of abdominal pain to analgesics and renal involvement in the first month ($p<0.05$).

Conclusion: Severe joint and gastrointestinal involvement were associated with renal involvement at the beginning of the disease, and severe gastrointestinal involvement at baseline was associated with severe renal involvement at one and six months. Initially, patients with severe abdominal pain, who cannot move at all, who remain in play, prefer to stay in bed, and/or have melena should be evaluated more carefully for renal involvement.

Keywords: Henoch-Schönlein purpura, renal involvement, children

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SS72

INVESTIGATION AND RELATIONSHIP OF RENINE, ALDOSTERONE, ANEGIOTENSIN AND LIPID METABOLISM GENES IN CHILDHOOD PRIMARY HYPERTENSION PATOGENESİS

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Background: Primary hypertansion growth in children parallels the growth of children's obesity prevelans.Childhood hypertansion is known to cause hypertansion in adulthood [(1)]. Epigenetic alterations also have an effect on the cause of hypertansion. In this article the etiological factors of hypertansion and the genetic polymorphism are investigated [(2)].

Method: In this study which consists of 100 children from whom 50 are sick and the other 50 shape the control group, we investigated their age, gender, BMI, family history, blood glucose and lipids levels, their weight and height measurements and perantiles on hypertansion diagnosis, medications, weight and height controls after receiving therapy and target-organ damage. ACE, renine, angiotensin, aldosterone, FABP2, ApoB100 polymorphisms were evaluated.

Results: The average BMI of the sick children was 28.6 and the control group's was 19.2. It was established that the BMI of the children with elevated blood pressure is significantly higher (p<0.001) compared to that of the control group. Upon family history investigation we found that %40 of the patients had a member with hypertansion in their families whereas no family member of the childen in control group had elevated blood pressure. There was a significant difference in hypertansion existence in the families of the patients and the healthy children's (p<0.001). 14 (%70) of the 20 patients had a first- degree relative with hypertansion. In the biochemical examinations which were conducted in both groups, only the average HDL levels of the patients were found significantly lower of those of the control group (p<0.001). When investigated in the patients' group target- organ damage, the clinical outcome of most significance in hypertansion, was detected in 8 children (%16). 7 of those had shown only cardiac damage while one had also renal damage. When ACE, renine, angiotensin, aldosterone,FABP2, ApoB100 polymorphism distribution range was investigated (with 1 homozygous dominant, 1 homozygous recessive and heterozygous grouping) there were reported nostatistical differences of value. The trinary grouping of genotypes, the high rate of homozygosity in patients and the other ways of grouping when the differences between the sick and healthy were evaluated, there were also reported no significant statistical differences.

Conclusion: The genetic polymorphisms detected in hypertansion and related diseases reported by other studies there were found no relativity to the outcomes of our research or there were reported results that were in contrast to ours. In cases where opposing outcomes due to epigenetic interference are reported, studies associated with the etiology of primary hypertansion should be conducted on a larger group of patients and would require patient and control groups representative of various populations.

Table 1. Gene polymorphism distributions according to blood pressure 99 percentile in patient group.

k	≥99P n (%)	<99P n (%)	p
ACE			
DD	1 (%37.5)	5 (%50)	0.761*
ID	16 (%40)	3 (%30)	
II	9 (%22.5)	2 (%20)	
Renin			
DD	16 (%40)	4 (%40)	0.965*
ID	21 (%52.5)	5 (%50)	
II	3 (%7.5)	1 (%10)	
Anjiotensin			
MM	8 (%20)	3 (%30)	0.522*
MT	24 (%60)	4 (%40)	
TT	8 (%20)	3 (%30)	
Aldosteron			
CC	6 (%15)	1 (%10)	0.837*
CT	24 (%60)	7 (%70)	
TT	10 (%25)	2 (%20)	
FABP2			
AA	4 (%10)	0 (%0)	0.351*
AG	19 (%47.5)	7 (%70)	
GG	17 (%42.5)	3 (%30)	
Apo100			
AA	2 (%5)	0 (%0)	0.653*
AG	11 (%27.5)	2 (%20)	
GG	27 (%67.5)	8 (%80)	

P<0.01

Keywords: Children, hypertension, genetics, polymorpihsm

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SS73

CAN HEMOGRAM PARAMETERS BE A RELAPSE INDİCATOR İN NEPHROTİC SYNDROME?

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Objective: Our aim was to evaluate of hemogram parameters (leukocyte, neutrophil, lymphocyte, monocyte, eosinophil and platelet count; neutrophil/lymphocyte and monocyte/lymphocyte ratio; MPV and PDW values) in children with nephrotic syndrome (NS) during relapse and remission periods and to determine the clinical importance of these parameters in the diagnosis of NS relapse and remission.

Method: The files of the patients who were being followed up in the pediatric nephrology outpatient clinic with NS diagnosis were examined and data were obtained.

Results: 108 attacks of 38 cases were evaluated. In relapse, mean spot urine MP/Cr 9.8±5.8; 24 hour urine MP 199±180 mg/m^2/h, WBC number 8880±2400, absolute neutrophil number (N) 4401±2012, absolute lymphocyte number (L) 3474±1182, absolute monocyte number (M) 536±429, absolute eosinophil number (E) 354±287, N/L ratio 1.5±1.3, M/L ratio 0.18±0.24, platelet count 373000±103000, PDW 15.8±0.5, MPV 9.5±8.5, sedimentation 57.0±26.6 and CRP 0.16±0.26. In remission, mean spot urine MP/Cr 0.3±0.5, 24 hour urine MP 4.9±2.8 mg/m^2/hour, WBC number 14318±5179, absolute neutrophil number (N) 8211±4270, absolute lymphocyte number (L) 5213±2191, absolute monocyte number (M) 848±457, absolute eosinophil number (E) 160±238, N/L ratio was 1.9±1.6, M/L ratio was 0.17±0.10, platelet count was 422000±119000, PDW 15.6±0.6, MPV 8.4±0.9, sedimentation 17.6±12.4 and CRP 0.05±0.15. The mean WBC, neutrophil, lymphocyte, monocyte and platelet counts and N/L ratio of patients in remission were significantly higher than the patients with NS attack period (p=0.001; p=0.001; p=0.001; p=0.001; p=0.001; p=0.006). Mean eosinophil count and sedimentation and CRP values were found to be lower in remission (p=0.001; p=0.001; p=0.005, respectively). The mean PDW, MPV values, and M/L ratio were unchanged in remission and relapse (p=0.058; p=0.183; p=0.866, respectively).

Conclusion: Leukocyte, neutrophil, lymphocyte, monocyte and platelet counts and N/L ratio were lower in the relapse period than in the remission period; eosinophil, sedimentation and CRP values were higher in the exacerbation period compared to the remission period; It was determined that MPV and PDW values and M/L ratio did not change during NS relapse and remission periods. Consequently, platelet count and neutrophil/lymphocyte ratio can be used as a marker in the definition of relapse and remission periods in children.

Keywords: Nephrotic syndrome, hemogram, relapse, child

SS76

EFFECT OF ACUTE PYELONEPHRİTİS ON RED BLOOD CELL DİSTRİBUTİON WİDTH (RDW)

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Introduction: Urinary tract infection is a common and important clinical problem in children. Acute pyelonephritis should be diagnosed and treated early, as it may lead to kidney damage and hypertension and end-stage kidney disease in later age. Among the hemogram values, such as red blood cell distribution width (RDW), may be overlooked. The importance of determining the prognosis of non-hematological diseases such as infection has been emphasized in recent years. There are few studies on this issue in children. Studies showing the change of RDW in other acute infections in children have been performed[1], but no study has been reported showing the change in acute pyelonephritis. The effect of acute pyelonephritis on RDW is intended to be determined. In addition, since it is a common, easy and inexpensive method, it is aimed to emphasize its value in determining the diagnosis and prognosis and to open the way for further studies on this subject.

Methods:RDW values of patients who were admitted to the pediatric nephrology department at Izmir Cigli Regional Education Hospital and diagnosed as acute pyelonephritis with modified Jodal criteria were screened retrospectively. The values during the disease were compared with those in the healthy period. Children with metabolic, genetic and chronic diseases were excluded from the study. RDW was measured with Beckman Coulter LH780 instrument. Its normal value was accepted as 11.70-13.40%.

Result: A total of 35 patients (29 (83%) girls, 6 (17%) boys) were included in the study. The mean age of the patients was 67±55 months. During acute pyelonephritis, the mean of the RDW values was 14.01%±1.47, and the mean of the RDW values in the healthy period was 13.83%±0.98. There was no statistically significant difference between the two groups (p=0.403).

Discussion: Urinary tract infection is a common and important clinical problem in children. Upper urinary tract infection should be diagnosed and treated early, as it can lead to kidney damage and hypertension and end-stage kidney disease in later years. Complete blood count (hemogram) is one of the most frequently used routine laboratory tests, but some values may be overlooked. Red blood cell distribution width (RDW) is one of them. RDW reflects the distribution variability according to the size of circulating erythrocytes, is the measurement of erythrocyte anisocytosis. It is primarily used to determine the diagnosis of hematological diseases such as anemia. Especially in recent publications, the prognostic significance of RDW in acute and chronic diseases such as cardiovascular diseases, venous thromboembolism, cancer, diabetes, chronic obstructive pulmonary disease, liver and kidney failure, and some infections is emphasized and considered as a strong and independent risk factor for death in the general population. Increased RDW has been associated with poor prognosis. Although RDW increase reflects impaired erythrocyte homeostasis, it has been reported that it may be associated with underlying metabolic changes such as shortening of telomere length, oxidative stress, inflammation, poor nutrition, dyslipidemia, hypertension, erythrocyte destruction and changes in erythropoietin function. Whether the increased RDW value is a risk factor, or whether only the underlying biological and metabolic imbalance is to be considered an epiphenomen, should not be used only in the diagnosis of anemia[2,3]. There is a need for studies on this subject. In our study, there was no change in RDW value during acute pyelonephritis, new studies are needed with more patients.

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SS77

RAPID GENETIC TESTING METHODS IN THE DIAGNOSIS OF ALPORT SYNDROME

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Aim: The most common cause of isolated microscopic hematuria is Alport syndrome. In our country, there is no specific study on the genetic etiology of Alport Syndrome (AS). In this study, our aim was to investigate the pathogenic variants of AS-associated COL4A3, COL4A4 and COL4A5 genes in patients with hematuria.

Method: Fifty hematuria patients admitted to our clinic between 2016-2019 were investigated. All coding exons and exon-intron junction regions of the COL4A3, COL4A4 and COL4A5 genes were sequenced by the new generation sequencing method. Heterozygous or homozygous variations were detected in 15 of 50 patients. Genotypic and phenotypic features of mutant patients were evaluated.

Results: In this study, 1 patient was found to have a compound heterozygous variant in the COL4A4 gene. In addition, COL4A4 in 1 patient and homozygous variant in the COL4A3 gene in 1 patient were detected. The rest of 12 patients had heterozygous changes.

Discussion: Diagnostic genetic testing of AS should be designed to include all coding regions of all COL4A3, COL4A4 and COL4A5 genes, not only for frequently reported pathogenic variants. Due to the widespread availability of Alport disease genetic tests, it can now be diagnosed more easily and quickly. In this study, we aimed to emphasize the importance of genetic screening before invasive tests in isolated microscopic hematuria patients.

Keywords: Alport syndrome, hematuria, COL4A3, COL4A4, COL4A5

SS78

PROCESSED FOODS FOR KIDNEYS: COULD SWEET FOODS BE SALTED?

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Objective: Packed foods are frequently consumed in daily nutrition. The salt ratios of packaged foods on the market shelves are quite high when considering the daily salt requirement. The aim of our study is to determine of the salt ratios of packaged foods offered in the markets; and to compare the salt ratios between sweet and sweet foods.
Method: Long-life packaged foods (biscuits, wafers, chocolate, crackers, cakes, potato chips etc) were divided into sweet and salty categories. The salt ratios of 100 g of the product in the content table of each product were recorded.
Results: The package included 100 sweet and 100 salty foods. The average sodium content was 0.47±0.31 g/100 g of product (0.1-1.8) and 1.70±0.80 g/100 g (0.1-3.6) product in packed sweet foods and in salty foods respectively (p=0.001).
Conclusion: The relationship between salt intake and kidney damage, regardless of blood pressure, has also been demonstrated. In our society, a common idea prevails that only salty foods are high in taste and sweet foods do not contain salt. As seen in the results of our study, the salt ratios of prepackaged foods are quite high, exceeding daily human body requirements. Even more interesting is the fact that in the sweet foods, NaCl content is as high as the salty foods. Considering the general public health, salt restriction in diets is essential. When recommending a 'salt-free diet' to sick children and their families, it should be clearly stated that salt is found in all sweet foods, not just in salty foods. Considering that long-life packaged foods on the market shelves have place in the daily nutrition of children, it is important to inform families about the consumption of packaged foods and the salt content of sweet foods.

Keywords: Kidney, prepared food, salt

SS79

RETROSPECTIVE INVESTIGATION OF THE EFFECT OF KETOGENIC DIET ADMINISTRATION ON VITAMIN D LEVELS IN PATIENTS WITH REFRACTORY EPILEPSY

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Aim: Epilepsy is a brain pathology characterized by a continuous tendency to cause seizures and its neurobiological, cognitive problems. Intractable epilepsy is defined as the inability to prevent seizures, although at least 2 antiepileptic drugs administered in accordance with the type of seizure have been used sufficiently for time and dosage. Ketogenic diet treatment is a diet containing high fat and low carbohydrate that has been used in the treatment of epilepsy for more than 80 years. The aim of this study was to determine the effect of ketogenic diet on vitamin D.

Methods: Patients who were followed up in the Pediatric Neurology outpatient clinic with the diagnosis of resistant epilepsy treated ketogenic diet were included in the study. Our study was planned in case-control type, retrospective study. The files of the patients were examined and demographic features, laboratory results (25 OH D vitamini, ALP, Ca, P, Mg), etiologic diagnosis and antiepileptic drug treatments were noted.

Results: A total of 129 patients (61 patients on ketogenic diet and 68 patients as control group) were included in the study. Of the total patient group, 71 (55%) were male and 58 (45%) were female. The mean age of all patients was 7.03±7.06 (min-max 1 month-18 years). The mean age was 6.4±4.2 in the ketogenic diet group and 7.7±4.9 in the non-ketogenic diet group, (p=0.076). Magnesium value was significantly lower in the ketogenic diet group (p=0.042). Vitamin D deficiency was significantly higher in the ketogenic diet group (p=0.015). No significant difference was found between Ca, P, ALP, 25 OH vitamin D levels between the two groups. There was no significant difference between the laboratory values according to the seasons. There was no significant difference in laboratory values between patients who used liver enzyme induction drug and those who did not. Symptomatic epilepsy was significantly higher in patients whoes traeted on KD however criptogenic epilepsy was significantly higher patients not on KD (P=0.008). The frequency of structural anomaly in MR results was found to be significantly higher in patients receiving KD (p=0.004). There was no significant difference in terms of ambulation in both groups (p=0.428). Four or more antiepileptic usage were significantly higher in the group receiving the ketogenic diet (p=0.018). Vitamin D deficiency was found to be significantly higher in the group receiving ketogenic diet (p=0.015).

Discussion: In our study, vitamin D and magnesium deficiency were found to be more common in patients with resistant epilepsy who were on KD. Considering the literature, in the study conducted by Bergqvist et al. patients who were planned to start KD were followed up in terms of Ca, P, Mg and 25 OH vitamin D levels until the 15th month with an interval of 3 months. Significant decrease was observed in the 25 OH D vit level until the 15th month after the 3rd month. Similarly, Hahn et al. found 25 OH D vit levels low in patients receiving KD.

Conclusion: In the future studies, we think that evaluating bone densitometry will make an important contribution both in the evaluation of bone health of patients and in the evaluation of fracture risks. We would like to emphasize that the more frequent follow-up of vitamin D and magnesium deficiency in patients with resistant epilepsy who treated withKD may provide early diagnosis and treatment for complications that may arise.

SS80

RESULTS OF ADDING SULTHIAM IN ELECTRICAL STATUS EPILEPTICUS SPECTRUM DURING SLOW SLEEP

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Objective: Electrical status epilepticus in sleep (ESES) is an age-related, self-limiting disorder characterized by epilepsy with different seizure types, neuropsychological regression, motor impairment, and a typical EEG pattern of continuous epileptiform activity for more than 85% of non-rapid eye movement (NREM) sleep.To investigate the response to the sulthiam treatment of patients who did not benefit from the first-line antiepileptic treatment in electrical status epilepticus in sleep.

Method: Hospital records of ESES patients were reviewed between 2016 and 2019 at Çiğli Regional Training Hospital in terms of demographic information, epilepsy etiology, seizure frequency and cognition. ESES defined as a typical EEG pattern of continuous epileptiform activity for more than 85% of NREM sleep. EEG and brain magnetic resonance imaging (BMRI) tests were performed for each patient and genetic epileptic encephalopathy panel examinations were performed in patients with unknown etiology. 10-25 mg/kg/day sulthiam treatment was added to the antiepileptic treatments of the patients. The duration of ESES before sulthiam, treatment length and sulthiam depended EEG proven improvement were recorded. Seizure frequency and spike-wave index calculation were used to determine the improvement. The patients were followed-up with EEG, seizure frequency and neurophysiological examinations every 2 months.

Results: Five of seven patients were normal mental status and 2 were moderate mental retarded. One of the patients was hypoxic ischemic encephalopathy, two were epileptic encephalopathy syndrome, and 4 were childhood age-related epilepsies. Seizures stopped in six patients, and ESES pattern disappeared in four patients. In childhood age-related epilepsies, sulthiam improved both seizure and EEG findings, while no improvement was observed in EEGs in symptomatic and genetic epilepsies.

Conclusion: Electrical status epilepticus in early sleep is a developmental epileptic encephalopathy associated with seizures, language and cognitive decline and behavioral problems. There are studies shows that the longer when the ESES untreated, more persistent and severe cognitive destruction could occur. For this reason, it is important to add other treatments and monitor these treatments closely before it is too late in patients who did not benefit from first-line treatment. Sulthiam has been shown to be effective in both stopping seizures and improving EEG findings in ESES cases in idiopathic epilepsies. Therefore, it is recommended to add sulthiam in ESES cases without structural and genetic disorders.

Keywords: Sulthiam, epileptic encephalopathy, ESES, treatment

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SS81

EVALUATION OF ERYTHROCYTE FERRITIN LEVELS IN CHILDREN AGED 6 MONTHS TO 6 YEARS WITH FEBRILE CONVULSION

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Introduction: Febrile convulsion is defined as acute symptomatic convulsion, often triggered by fever without concomitant central nervous system infection or electrolyte disturbance, in children aged six months to six years of age, who have no previously known neurological abnormalities. It is thought that iron deficiency anemia may play a role in febrile convulsion pathogenesis considering the similar age group where febrile convulsion and iron deficiency anemia is most common and the effects of iron deficiency on the central nervous system on energy metabolism, neuronal integrity, myelinization and neurotransmitter metabolism. In our study, we investigated the relationship between febrile convulsion and iron deficiency anemia by comparing serum and erythrocyte ferritin levels in patient and control groups.

Methods: Twenty patients admitted to the Sultan Abdulhamid Han Training and Research Hospital pediatric neurology outpatient clinic between July 2015 and April 2016 with a history of febrile convulsion (axillary temperature ≥ 38°C) were included in the study. Patients with continuous medication need, seizures due to intracranial hemorrhage, electrolyte imbalance, and systemic disease were excluded from the study. The control group was composed of healthy children of the same number, similar age and gender. Venous blood samples were taken from patients in the study group to measure hemoglobin, iron, total iron binding capacity, serum and ferritin levels within 24-72 hours after suffering febrile convulsion. Serum and erythrocyte ferritin levels were measured on the Abbott i2000 automated analyzer and Chemiluminescent Microparticle Immunoassay (CMIA). Data were evaluated statistically with SPSS v 15.0 for Windows (Chi.Il,USA) package program.

Results: A total of 40 children were included in the study. There were 20 children (10 boys, 10 girls) in the patient group. The same age and gender were in the control group. There was no difference between the age, hemoglobin, iron and total iron binding capacity values of the patient and control groups ($p>0.05$). When the groups are examined in terms of serum ferritin levels; the mean ferritin level of the patient group was 54.19±32.66 ng/ml and the mean of the control group was 22.02±7.99 ng/ml. This difference between the groups was statistically significant ($p=0.001$). The mean erythrocyte ferritin value of the patient group was 36.9±13.58 ng/ml and the control group was 32.51±7.75 ng/ml ($p>0.05$).

Discussion: In our study, no iron deficiency anemia was detected in children with febrile convulsion, and it was observed that serum ferritin level was higher than the control group ($p<0.05$). In order to distinguish whether this high ferritine level is due to inflammation or infection in the patient group, we found that the level of erythrocyte ferritin examined was lower than the serum ferritin level, although it was not statistically significant. This finding reverses the positive relationship between iron deficiency anemia and febrile convulsion, which was noted in previous studies. This suggested that the tendency to febrile convulsion would not only lead to iron deficiency due to iron deficiency anemia, but also high ferritin levels where iron load was high or triggered by inflammation may increase susceptibility to febrile convulsion.

SS82

EVALUATION OF CHILDHOOD NEUROPSYCHIATRIC COMORBIDITIES: 5-YEARS SINGLE CENTER EXPERIENCE

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Aim: This study aimed to evaluate the neuropsychiatric comorbidities in patients who were consulted from Department of Child and Adolescent Psychiatry to Department of Pediatric Neurology at Dokuz Eylul University Faculty of Medicine.
Method: The patients, who were consulted to our department between 1st January 2015 - 1st December 2019 were evaluated in terms of age, gender, psychiatric diagnosis, reason for consultation, accompanying neurological finding, presence of epilepsy, brain magnetic resonance imaging (MRI) and electroencephalography (EEG) findings.
Results: Between the specified dates, 440 patients were consulted to our department and 370 of these patients who applied to our department were included in the study. 70% (n=261) of the patients were boys and 30% (n=109) were girls. Mean age was 9.2 years old (18 months-18 years). Attention deficit and hyperactivity disorder (ADHD) (n:118, 31.8%), autism spectrum disorder (ASD) (n:74, 20%) and speech disorder (n:26, 7%) were the most common psychiatric diagnoses. The most common causes of consultation were the exclusion of underlying organic causes (n:144, 38%), suspicious seizure activity (n:58, 15%) and the investigation of mental retardation etiology (n:50, 13.5%). Of 275 patients who had undergone EEG, 218 had normal (79%) and 57 (26.1%) had abnormal findings. The most common EEG abnormalities were generalized and focal epileptic abnormalities, dysrhythmia, fast beta activity and hemispheral asymmetry. Abnormal findings were detected in 19.4% of brain MRIs (n:41); encephalomalacia and gliotic changes were most frequent (n:12, 29.2%).
Conclusions: EEG abnormalities and organic etiology are detected in the majority of the patients who are consulted from the department of child and adolescent psychiatry to the department of pediatric neurology. For this reason, neuropsychiatric comorbiditiesshould be kept in mind during child and adolescent psychiatry evaluations and a multidisciplinary approach is required.

Keywords: Child and adolescent psychiatry, pediatric neurology, consultation

SS83

DETERMINATION OF ETIOLOGY IN CHILDREN ADMITTED WITH HYPOTONIA: VALUE OF RADIOLOGICAL, PATHOLOGICAL, METABOLIC AND GENETIC STUDIES ON DIAGNOSIS

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Introduction: In infants, many diseases that cause brain, cerebellum, spinal cord, peripheral nerves, nerve-muscle junction or muscle involvement can cause hypotonia and developmental retardation. Although some of these patients can be diagnosed by anamnesis, physical examination and routine laboratory examinations, diagnosis can be made after a long period of time in a significant part of the patients. In recent years, the increase in the number of metabolic and genetic tests and the widespread use of them have led to the diagnosis of the diseases in a shorter time.

Aim: In this study, we aimed to determine the etiological causes of hypotonia in children and the diagnostic contribution of the radiological, biochemical, metabolic, pathological and genetic studies to the diagnosis; so that it is aimed to determine in which patients which examinations should be done first in order to reach faster diagnosis.

Method: Two hundred and four cases who were admitted to SBU İzmir Dr. Behçet Uz Children's Training and Research Hospital Neurology and Metabolism Clinic between January 01, 2015 and December 31, 2015 and who had dominant finding of hypotonia and delayed motor development stages were included in the study The patients were divided into central and peripheral hypotonia groups. Clinical and laboratory variables were compared between groups.

Results: Central hypotonia was detected in 67.2%, peripheral hypotonia in 10.8%, combined central and peripheral hypotonia in 5.9% of the patients. Etiology could not be determined in 16%. Although it was rarely seen individually, 31.9% of all patients had metabolic diseases as the most frequent etiologic group. Cerebral damage in the perinatal period with 18.6%, chromosomal disorders with 8.6%, single gene disorders with 7.4%, neurodegenerative diseases and cerebral malformations with 1.5%. were the other etiological reasons. Myopathies with 5.9% and anterior horn motor neuron diseases with 4.4% were the most frequent peripheral hypotonia diseases.

Decrease in deep tendon reflexes and weakness were more frequent in peripheral hypotonia patients, whereas cognitive retardation, epileptic seizures and dysmorphic findings were more frequent in central hypotonic patients. Creatine phosphokinase elevation, hypothyroidism and low vitamin B12 levels were found in 18.1%, 4.2% and 1.4% of patients, respectively. These findings were significantly more frequent in patients with peripheral hypotonia. As the first line metabolic tests, blood amino acid, urine amino acid, urine organic acid, Tandem MS, ammonia and lactate levels were found to be 16.2%, 12.3%, 25.2%, 9.9%, 11.4% and 17.4%, respectively. None of these findings were found to have contribution to the diagnosis in patients with peripheral hypotonia. The contribution of cranial MRI, MR spectroscopy, EMG, genetic studies and muscle biopsy to thediagnosis was 47.6%, 44.4%, 40.5%, 71.9% and 70.8%, respectively. Cranial MRI was found to be contributed more to the diagnosis in central hypotonia, whereas EMG was found to be contributed more to the diagnosis in peripheral hypotonia patients.

Conclusion: Many different diseases; mainly metabolic disorders, genetic diseases and perinatal disorders, cause hypotonia. Clinically, central and peripheral hypotonia should be differentiated in children who are admitted due to hypotonia. Cranial imaging, metabolic and genetic studies in central hypotonia patients and genetic studies and EMG in peripheral hypotonia patients should be performed after creating a preliminary diagnosis.

Keywords: Central hypotonia, hypotonia in children, peripheral hypotonia

SS84

CLINICAL CLUES IN DIAGNOSIS OF COMBINED IMMUNODEFICIENCY: A 17 YEAR SINGLE-CENTER EXPERIENCE

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Introduction: Severe combined immune deficiency (SCID) and combined immune deficiency (CID) are primary immune deficiency with autoimmunity and malignancy, in both cellular and humoral immunity are affected. All cases with SCID, CID, and combined immune deficiency with associated or syndromic features (CIDs) were evaluated retrospectively for diagnostic clues with the 17-year experience of our department.

Methods: All cases with SCID, CID and CIDs followed up between 2003-2019 were included in the study. The clinical findings, symptoms, age of diagnosis, duration of follow-up, family history, consanguinity, growth, failure to thrive, autoimmunity, malignancy, pulmonary, allergic and endocrine diseases were recorded.

Results: SCID, CID, and CIDs were detected in 115 patients. The male/female ratio was 1.4 (67/48). The mean age was 97.5±64.5 months, the onset of symptom age was 23.8±35.2 months, and the age of diagnosis was 51.2±45.9 months. The most common causes of admission were frequent/persistent infections (57.3%), failure to thrive (30.4%), eczema/dermatitis (16.1%), cytopenia (7.8%), lymphopenia (5,2%), chronic diarrhea (4.3%) and malignancy (2.6%), respectively. Family history was 30% and consanguinity was 41%. At follow-up, pulmonary (45%), endocrine (31%), allergy/atopy (22%) autoimmunity (15.1%), malignancy (7.8%) were detected in patients.

Conclusion: Infants with SCID and CID look healthy at birth unless there is a genetic syndrome with congenital anomalies. If there is no family history or if it was not detected with a newborn screening, clinical findings may onset on average of six months. The only curative treatment is hematopoietic stem cell transplant. In our country, until the TREC test (T cell receptor excision rings) became routine, it is an immunological emergency to be aware of the diagnostic clues for SCID, CID, and CIDs. Therefore, not only the frequent/serious infections, but also the syndromic and dysmorphic features, autoimmunity, malignancy, pulmonary disease, consanguinity and family history, SCID, CID, and CIDs should be kept in mind for early diagnosis.

Keywords: Severe combined immune deficiency, immunological emergency, hematopoietic stem cell transplantation, pediatric combined immune deficiency

SS85

IMMUNOLOGİCAL FINDINGS OF PATIENTS WITH ATAXIA TELANGIECTASIA: A SINGLE CENTER EXPERIENCE

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Objective: Ataxia telangiectasia is an autosomal-recessive neurodegenerative disease with progressive cerebellar ataxia, oculocutaneous telangiectasia, humoral and cellular immunodeficiency, radiation sensitivity and cancer susceptibility. In this study, we evaluated the demographic, immunological and follow-up results of children diagnosed with ataxia-telangiectasia in our center.

Methods: Children diagnosed with ataxia telangiectasia in our clinic between 2003 and 2019 were retrospectively evaluated. Gender of patients, consanguinity, family history, age of diagnosis, age of onset of symptoms, current age, laboratory and clinical follow up findings, treatment regimens and outcomes were recorded.

Results: Ataxia telangiectasia was diagnosed in 18 patients and 55.6% of the patients were male (n=10). The mean age was 130.4±56.5 months; age of onset of symptoms was 31.4±24.2 months. The mean diagnosis age was 84.2±28.7 months and follow-up period was 42.9±46.9 months. Twelve patients (66.7%) had a family history of consanguinity and nine patients (50%) had a family history of ataxia telangiectasia. Recurrent sinopulmonary infections were defined in half of the cases on admission. The most frequent form of immunodeficiency was IgA deficiency (11 patient) which was followed by IgG2 deficiency (9 patient). Two patients had elevated IgM levels and two patients had reduction in total IgG levels. Fifteen patients (83.3%) had decreased levels of CD4+ T lymphocytes, 15 patients (83.3%) had decreased levels of CD19+ B lymphocytes and 4 patients (22.2%) had decreased levels of CD8+ T lymphocytes. Immunoglobulin replacement therapy (77.8%) and prophylactic antibiotic (83.3%) were used. In follow-up, 5 patients (27.9%) developed bronchiectasis and 2 patients (11.1%) developed autoimmune disease. Hepatocellular carcinoma and hodgkin lymphoma observed in two patients. Six patients died.

Conclusion: Ataxia telangiectasia is a multisystemic disorder and evaluation of immunological status and appropriate treatment may increase the quality of life of the patients.

Keywords: Ataxia telangiectasia; immunodeficiency; ATM

SS86

CLINICAL OUTCOMES OF OUR PATIENTS WITH ELECTRICAL STATUS EPILEPTICUS DURING SLOW-WAVE SLEEP (ESES)

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Purpose: The purpose of the study was to investigate electroclinical features of the patients with electrical status epilepticus during slow-wave sleep (ESES).

Method: All patients diagnosed with ESES (spike-wave index (SWI) ≥50%) between 2012 and 2019 were evaluated in the context of their demographic findings, cognitive status, comorbitidity of epilepsy, treatment, one sleep EEG and neuroimaging findings. While electrographical recovery from ESES was defined as SWI <50%, positive treatment response was defined as decrease of seizure frequency > 50%. Cognitive status was evaluated clinicaly as deteriorated or stable.

Results: Twenty-nine patients (female:11, male:18) were included. Median age at onset of epilepsy was 4.97 years (range: 0,01-10,94 years) and of ESES was 7.31 years (range: 2,5-12,82 years). Following the diagnosis of ESES median duration of follow-up was 2,26 years (range: 0,24-7,38 years). All but two patients had epilepsy before ESES (Landau-Kleffner Syndrome (n=1), simultaneous diagnosis of epilepsy and ESES (n=1)). Epileptic syndromes were identified in 10 patients (%34.4) (rolandic (n=8) and occipital lobe (n=2) epilepsies). Eight cases (28.1%) had pathological findings in brain magnetic resonance imaging. Seventeen cases (58.6%) had cognitive impairment before diagnosis of ESES. At the last follow-up, 6 patients (20.7%) had deterioration in their cognitive status; 4 with electrographical recovery from ESES. Four non-treated patients were all cognitively stable. Benzodiazepines (n=18), corticosteroids (n=14), levetiracetam (n=5), sultiam (n=4) and valproic acid (n=3) were the most commonly used antiepileptic treatments respectively. Seizure control was achieved in 13 (65%) out of 20 patients with seizures at the beginning of treatment. Electrographical recovery from ESES was observed in 17 (58.6%) patients and was not related to seizure control (p=0.66), steroid treatment (p=0.69) and cognitive status (p=0.10) significantly. Although insignificantly related to cognitive status at the recovery from ESES (p=0.97), duration of ESES was significantly shorter in patients with ongoing seizures (p=0.01).

Conclusion: Seizures and ESES are known as spontaneously remitting entities by puberty. On the long-term outcome, cognitive improvement can be observed after cessation of ESES but in some patients neurocognitive and behavioral impairments continue. In previous studies the duration of ESES was shown as a one of the most important predictors of the neurocognitive outcome. It was also suggested that early diagnosis and effective treatment to reduce seizures and resolve ESES may have a crucial role in improving the long term prognosis. In our study the date when SWI was lower than %50 was chosen as the point of remission. It may be concluded that despite a decrement, spike frequency and even possibly interictal spikes may be playing a role in cognitive outcomes. The reason why duration of ESES was significantly shorter in patients with ongoing seizures is probably because of more effective antiepileptic therapy. Although electrographical recovery from ESES is important in follow-up, especially for seizure control, we conclude that it is difficult to interpret cognitive outcomes by clinical and electrophysiological aspects which challenge clinicians to decide on management.

Keywords: Epilepsy, electrical status epilepticus during slow-wave sleep, antiepileptic treatment, cognitive status, spike-wave index

SS87

EFFECTIVENESS OF THE KETOGENIC DIET IN CHILDREN WITH DRUG-RESISTANT EPILEPSY

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Ketogenic diet (KD) treatment remains a valuable therapeutic option for patients with intractable epilepsy. However, limited data are available for the effectiveness of the KD in children with drug resistant epilepsy.

Purpose: We aimed to investigate the effectiveness of KD in children with various types of refractory epilepsy.

Methods:A total of 79 children (43 females) aged 0 to 192 months (median, 52 months) with medically refractory epilepsy who received a KD for at least 12 months at University of Health Sciences, Dr. Behçet Uz Children's Education and Research Hospital between 2013 and 2019 years were enrolled in the study. Seizure control and adherence to diet were recorded at month -1, -3, -6, -9, -12, and ever 6 months thereafter. We also evaluated influences of different variables (age at onset of epilepsy and KD treatment, underlying conditions) on the outcome.

Results: Intent-to-treat analysis revealed an improvement of seizure frequency for ≥50% in 70.9%, 78.5%, 75.9%, 73.4%, and 69.6% of patients at month-1, -3, -6, -9, and month-12, respectively. Overall, 26 (32.9%) patients remained seizure-free at month-12. Treatment failure was observed in 24 (30.4%) patients. There was no significant difference between responder and failure groups in terms of age at onset of epilepsy, age at onset of ketogenic diet, and gender. KD appeared particularly effective in patients with glucose transporter 1 deficiency, pyruvate dehydrogenase deficiency, and Dravet Syndrome. At the last follow-up (mean: 27.5 months), 27 (34.2%) patients were still receiving KD. While 19% of patients completed the diet due to success in seizure control, remainder discontinued KD due to lack of efficacy (25.3%), nonadharence to diet (17.3%), adverse effects (7.6%), infection (1.3%), and death (1.3%).

Discussion: Our rates of seizure control were comparable to those of previous reports, but rates of remaining on diet were higher, which may underlines the importance of KD modified individually considering the families and the child's preferences, the taste of patients, and cultural differences [(1)]. Similar to results from previous report 2, KD was particularly effective in patients with glucose transporter 1 deficiency, pyruvate dehydrogenase deficiency, and Dravet Syndrome in our study. Cognition and alertness can improve during patients are on the ketogenic diet [(3)]. Consistently parents reported improvement in alertness in more than 75% of children in our series.

Conclusion: KD treatment appears effective in approximately half of children with various types of drug-resistant epilepsy, however it fails in the remainining half of patients due to ineffectiveness, nonadherence to the diet, or side effects.

Keywords: Ketogenic diet; medically refractory epilepsy; effectiveness; tolerability

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SS88

DETERMINATION THE LONG TERM PROGNOSIS IN CHILDREN HOSPITALIZED WITH LOWER RESPIRATORY İNFECTION DUE TO RESPIRATORY SYNCYTIAL VIRUS

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Introduction: Acute bronchiolitis affects the lower respiratory tract, especially in children under two years of age. The agent of acute bronchiolitis is mostly viruses. Respiratory syncytial virus (RSV) is found to be an indicator factor in 50-90% of patients [(1)]. It is at the forefront among the reasons for hospitalization during infancy. The purpose of this study is the determination of the risk in terms of inhaled treatment needs, recurrent wheezing and development of asthma in the post-discharge follow-up of children who have undergone RSV and who have had lower respiratory tract infection (LRTI) and hospitalized.

Methods: Patients who were 0-5 years and had lower respiratory tract infections due to RSV between January 2007 and December 2014 were included. Those with a history of premature birth or chronic diseases were excluded. Families were called by phone, and 151 patients were reached. Those who were 0-2 years at the time of diagnosis were 108, and those between 2-5 years were 43 children. While starting the survey, the mother/father was informed about the study and informed consent was obtained.

Results: Totally 151 patients included in the study; 84 (%55,6) were male, and 67 (%44,4) were female. Forty-four of the patients (29.1%) were hospitalized at least once due to lower respiratory tract infection. Eighty patients (52.9%) did not need to receive inhaled treatment after discharge, while 71 (47.1%) needed to receive inhaled treatment at least once after discharge; 42 (27%) of the patients needed to receive inhaled treatment for the first year, 16 for two years (10.6%) and 14 (9.4%) for three years or more.

Conclusion: In the study of Kneyber et al. which included the follow-up of children who had bronchiolitis due to RSV, the wheezing recurred in %40 of the patients who had RSV bronchiolitis during the five-year follow-up and in %11 of the control group, this situation was found statistically significant [(2)]. In the follow-up between five years and ten years, %22 wheezing was observed in the group who had undergone RSV bronchiolitis and 10% in the control group.In our study, we found that symptoms could recur in patients following RSV infection. For this reason, it is essential to follow up on patients with the need for inhaled treatment and the risk of LRTI that may require hospitalization again. In children with RSV, families should be informed after hospitalization, and the clinics should continue the long-term follow-up of the patients.

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SS89

ATTITUDES AND BEHAVIORS OF ANESTHESIA SPECIALISTS TOWARDS ACUTE POSTOPERATIVE PAIN MANAGEMENT IN PEDIATRIC PATIENTS IN TURKEY

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Introduction: Rapid advances have been introduced in pediatric postoperative pain management in recent years. Postoperative pain management is more difficult and complicated in children due to differences in the perception of pain and inadequacies of descriptions compared to adults. Furthermore, pharmacodynamics and response to drugs display different characteristics between infants and older children.

Performing a survey, our study aimed to obtain information from the anesthesiologists of our country about the standard procedures and treatment methods used for pediatric postoperative pain management in their respective institutions.

Method: Approval of the non-interventional ethics committee of Dokuz Eylül University was obtained for the conduct of this survey study (protocol no: 4620-GOA/date: 10.04.2019, Chair: Dr. Sadık Kıvanç Metin, MD). The data for this survey study were collected via the questionnaire form, which was distributed and filled out as an electronic form on the internet.

Results: The data received from 56 anesthesiologists, who responded to the questionnaire questions promptly, were evaluated. To the question 'is anesthesia administered at your institution to children younger than 18 years old?'; 89.3% (n=50) of the participants answered 'yes', 7.1% (n=4) answered 'yes but sometimes', and 3.6% (n=2) answered 'yes but rarely'. To the question 'are PCA (Patient Controlled Analgesia) devices available at your institution?', 69.6% (n=39) answered 'yes' and 30.4% (n=17) answered 'no'. The question asking information whether periodic training in pediatric postoperative analgesia was provided to the participants at their respective institutions was answered 'yes' by 14.3% (n=8) and 'no' by 85.7% (n=48) of the participants. 'Pain scoring with pain scales is critical.' To the question 'please specify to what extent you will agree with this statement', 94.6% (n=53) answered 'agreed' and 5.4% (n=3) answered 'disagreed'. A variety of pain scales appropriate for the age and cognitive developmental stage of the child are available. The question 'which pain scales do you prefer to use?' was answered as follows: 91.1% (n=51) VAS,67.9% (n=38) Faces scale, 19.6% (n=11) behavioral observation scale, and 35.7% (n=20) numerical scales.

Conclusion: The multimodal analgesia approach involves a combined use of opioids with non-opioid agents to prevent postoperative pain. Multimodal approaches reduce the likelihood of side effects compared to monotherapy [(1)]. Our study results demonstrate that no standard approach is available for pediatric postoperative pain management. We think that it is possible to develop optimal pediatric postoperative pain management strategies; which include regular assessment and documentation of pain scores with pain scales appropriate to the child's age and cognitive development level, by standardizing analgesia procedures specific to different types of surgery, by the use of regional anesthesia techniques when appropriate, by the administration of intravenous opioids complying with age and weight-adapted dosage protocols, and by physician training at regular intervals.

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SS90

OUR SURGICAL NEED AND RESULTS IN PEDIATRİC PALLIATIVE CARE UNIT

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Introduction: Palliative care is a care system aimed at improving the quality of life in progressive and untreated diseases [(1,2)]. The World Health Organization defined palliative care in 1986 as all care for individuals with the disease that did not respond to treatment. In the following years, the World Health Organization changed the definition of palliative care as an approach that improves the quality of life of the patient and his family by preventing them from suffering by identifying and treating pain, physical, psychosocial and spiritual problems in the early period [(3)]. The first palliative care unit was established in France in 1842. The last period patient care center service was first started in England in 1967. In our country, the first pediatric palliative care center was put into service at Bursa Dortçelik Children's Diseases Hospital in 2015. Our hospital's pediatric palliative care center started to serve in December 2018. While monitoring in the pediatric palliative care unit of our hospital, operations were performed in 29 patients with operation needs, accompanied by general anesthesia and sedation-analgesia. In this study, we aimed to evaluated our anesthesia management and outcomes of these patients.

Methods: Between December 2018 and July 2019, twenty-nine patients who needed surgery during pediatric palliative care were evaluated. These patients' demographic data, diagnosis, reasons for admission to the palliative service, surgical procedures and complications seen in the perioperative period were analyzed retrospectively and cross-sectionally.

Results: 29 patients (M/F:16/13-mean age of 70.1 months) were included in the study. We found that 65.5% of the patients had a normal birth, 34.5% had CS, 10% had preterm and 90% had a term birth. 58.6% of the patients did not have an incubator history, 41.4% had an incubator history. Patients were planned to underwent operations with the diagnosis of Down syndrome-Sulfite oxidase deficiency-GM2 activator protein deficiency-SMA type 1- Congenital muscular dystrophy-Cerebral palsy-Mitochondrial DNA mutation-Neurometabolic disease-Hypoxic ischemic encephalopathy-Tay sachs syndrome-Operated Meningomyelocele diagnoses. Surgical procedures performed in the operating room are central venous catheter or port catheter insertion-tracheal cannula replacement-Nissen fundoplication-repair of the aortic branch-PEG opening-wound debridement-graft repair-revision of gastrostomy-upper gastrointestinal endoscopy-opening of tracheostomy-muscle biopsy-pericardiocentesis. General anesthesia was performed for central venous catheter or port catheter insertion-Nissen fundoplication-repair of aortic branch-opening of tracheostomy-and pericardiocentesis procedures. Sedation analgesia was performed for tracheal cannula replacement-PEG opening-wound debridement-revision of gastrostomy-upper gastrointestinal endoscopy-muscle biopsy procedures. No complication was observed in our patients during or after these operations.

Conclusion: Pediatric palliative care units are now also being used for some children with chronic and life-limiting or threatening conditions in our country.[1] In hospitals where there is no pediatric palliative care unit, these patients will be followed up in the pediatric intensive care unit. We think that the acute problems of these patients will be more easily solved by increasing the number of pediatric palliative care units. With the increasing number of pediatric palliative care units, we can prevent these patients from staying separate from their families in intensive care units. As a result, general anesthesia and sedation analgesia can be applied safely in our operating room for patients followed up in our pediatric palliative care unit.

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SS91

COMPARISON OF TREATMENT OPTIONS IN PEDIATRIC PATIENTS WITH HYPERTROPHIC SCAR AFTER BURN

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Aims: The post-burn hypertrophic scar is a pathological scar tissue that is frequently encountered in clinical practice, disrupts the aesthetic appearance in patients and leads to functional limitations. It may occur 6-8 weeks after the completion of epithelialization even after minor burns. When seen in joint areas, it can cause joint movement limitations [1]. On background of diversity in treatment options, in our study we aimed to evaluate the effectiveness of these different methods used in patients who developed hypertrophic scar after burn.

Methods: The patients developed post-burn hypertrophic scars and admitted to our clinic between April 2019 and November 2019 were retrospectively evaluated. Patients who were treated with silicone covered compression garment (n:19), silicone layer (n:7), silicone gel (n:10), allium-cepa + allantoin gel (n:12), and centaury oil (n:8) were included in the study. Medical records and database were reviewed to ensure consistent diagnosis and to extract epidemiological data, clinical findings, treatment and outcome of patients.

Results: Treatment effectiveness was evaluated by comparing the scores of the patients according to the Modified Vancouver Scar Scale (MVSS) before and after the treatment. In this scale which evaluates the vascularity (0-3), stiffness (0-5), degree of pigmentation (0-3) and height (0-4) of the scar, patients score between 0-15. The differences between the pre-treatment and post-treatment scores of patients in various treatment groups were analyzed with the Kruskal-Wallis test at $p<0.05$ significance level using the IBM SPSS 22.0 programme. The dataset consisted of 56 post-burn hypertrophic scar cases included 29 males (51.8%) and 27 females (48.2%). The mean age of patients was 4.0±3.3 (min-max: 1-17) years. In 43 patients, deep second degree burns and in 13 patients superficial second degree burns occured. In burn etiology, hot water (n:30), tea (n:4), milk (n:3), oil (n:4), food (n:3), flame (n:9), contact (n:2), and press (n:1) were defined. The mean time to start scar treatment after burn healing was 2.0±1.9 (min-max: 0-10) months. The mean duration to continue scar treatment was 7.0±1.7 (min-max: 3-10) months. According to the results of the statistical analysis of MVSS scoring, the silicone sheet provides more improvement in scar tissue compared to all topical treatments ($p=0.043$; $p=0.001$; $p=0.003$, respectively), while the silicone coated compression garment showed more significant improvement in scar tissue compared to all other groups, including the silicone sheet ($p=0,002$; $p<0,001$; $p<0,001$; $p<0,001$, respectively).

Discussion: Although there are different alternatives in the treatment of hypertrophic scar in the literature, for more effective results, compression garment is prominent and it is recommended to use at least 20-22 hours daily until the scar maturation is completed. There is no consensus on the minimum effective pressure of the compression garment. Some authors argue that there should be a minimum pressure of 15 mmHg, while some authors suggest that the 24 mmHg pressure required to beat the capillary pressure for effective treatment [1,2]. The compression garment provides the rearrangement of collagen fibers in scar tissue, the spiral-shaped collagen nodules shrink, and the reduction of blood flow to the scar tissue; thus, it accelerates fibroblast apoptosis by reducing the nutrient and oxygen support required for cellular activities [3-6]. It has been shown in several clinical studies that the use of compression garments is successful in reducing the height of the hypertrophic scar and in reducing hyperemia [1-3]. In the review of Monstrey et al. published in 2014 on hypertrophic scar treatments, it was stated that the most effective evidence-based treatments of post-burn hypertrophic scar are compression garment and silicone sheet [7]. Compression garments without silicone were used in these studies, which showed the positive effects of the compression in the literature, and individually produced garments, which were inlay-covered with a silicone sheet, were used in our clinic. Thus, it appears to provide both the advantages of the compression garment and the occlusive effect of the silicone sheet. Concave surfaces (i.e. axillary, inguinal, popliteal areas) where compression garments can not apply sufficient pressure can also be provided by silicone-coated garments and thus contractures can be prevented by providing significant improvements in these areas.

Conclusion: In burn patients, as soon as the skin integrity is achieved, the use of silicone covered compression garment seems to be more successful in preventing hypertrophic scar, regression of the hypertrophic scar, aesthetic and functional recovery of the scar compared to other methods.

Keywords: Burn, hypertrophic scar, compression garment, silicone sheet, silicone gel, burn scar

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SS92

IS SURGICAL INTERVENTION NECESSARY FOR BREAST DISEASES IN PEDIATRIC AGE GROUP? 100 CASE REVIEW

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Introduction: Surgical intervention is not required in 98% of breast masses seen in children and conservative approach is preferred in the foreground. Breast cancer; increasing incidence, especially in the adult population; the child with breast mass increases the anxiety in patients and their families. In this study, we retrospectively reviewed 100 breast disease cases admitted to our polyclinic between 2013-2019 years.

Method: 100 cases who applied to our policlinic were retrospectively analyzed due to complaints of mass in the breast, localized swelling, discharge and redness. The records of the patients were retrospectively examined age, gender, complaints, diagnostic examination.

Results: There were 78 girls (78%) and 22 boys (22%), mean age 11,9 years (9 months-17 years). The most common complaint was palpable breast mass in 82 (82%) cases. Ultrasonography was the most commonly used radiological investigation method in 90 (90%) cases. Consultations were requsted most commonly from Endocrinology polyclinic (35 cases, 35%). 98 (98%) cases were only followed without surgery, only 2 (2%) cases were needed surgical intervention.

Conclusion: In inflammatory and cystic diseases of the breast; when the current studies are examined; conservative approach is very important. Applying excision should not be avoided in the masses that may adversely affect breast development. Whether surgical intervention is required or not, all patients and their families should be assured of adequate psychological support. Conservative approach is essential for cancer history and imaging tests in the family, where there is no suspicion of malignancy. Patients and their families should be informed, should be called for regular check-ups, and possible concerns should be avoided.

SS93

INFANTILE OVARIAN MASSES REQUIRING EARLY SURGICAL APPROACH

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Aim: In this study we aimed to evaluate demographics and surgical approach of female infant patients who presented with intraabdominal cystic mass.

Method: 10 female infant applied between 2013-2018 with intraabdominal cystic mass reviewed retrospectively.

Results: Mean age of patients was 2 months (12 days- 5 months). 6 patients had diagnosis of intaabdominal cystic mass in antenatal ultrasonography. 2 patients applied after their mother noticing swelling of abdomen. 2 patients diagnosed in ultrasonography performed incidentally. Mean size of all excised cystic masses were 56 mm(40 -60 mm). All patients had preoperative abdominal ultrasonographic evaluation. 5 patients had MRI additionally. 6 patient with pre-diagnosis of mesenteric cyst/ enteric duplication cyst, 2 patient with suspicion of neaoplasia, and 2 patient with 40 mm sized mass operated electively. Ovary preserving surgical approach applied to 3 patient. 4 patients had oopherectomy and 3 patient had salpinghoopherectomy. Pathological examination revealed follicule cyst and nonneoplastic cyst of ovary. Mean follow up duration ±8,4 months.

Conclusion: Female patients with intraabdominal cystic mass under a year of age, ovarian pathologies should be kept in mind. Complex and giant cysts need surgical intervention.

Keywords: Infant, ovary

SS94

OUR APPROACH TO CHILDHOOD OVARIAN TORSIONS

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Introduction: Ovarian torsion is a pathology that requires urgent surgical intervention and can be clinically confused with acute appendicitis. The diagnosis is based on history, physical examination findings, and evaluation of the blood flow of the ovary. The aim of our study is to discuss the surgical methods and results of cases operated with the diagnosis of ovarian torsion.

Method: The file records of patients diagnosed with ovarian torsion between 2004-2019 were analyzed retrospectively. If torsion and neoplastic mass were observed in the operation, these patients were excluded from the study. The analyzed parameters are age, complaint at admission, physical examination and Doppler ultrasonography (US) findings, surgical methods, pathology results and postoperative ultrasonographic evaluation of ovaries.

Results: The average age of the patients was 7.18 years (2 months-17 years). Right ovarian torsion was detected in 14 patients. 24 of 25 cases admitted with severe abdominal pain. In addition, 16 patients complained of nausea and 7 patients had vomiting. In preoperative Doppler US, ovarian blood supply was not fully evaluated in 13 cases, no viability in ovaries was detected in 9 cases, and viability was observed in 1 case. Doppler US records of 2 cases could not be found in the file. 25 patients were operated with the diagnosis of ovarian torsion. Open surgery was performed in 18 cases and laparoscopic surgery was performed in 7 cases. 11 patients underwent oophorectomy, and 14 patients underwent ovarian and/or tuba-ovarian detorsion. Blood flow was detected in the postoperative control Doppler US of 10 patients who had only ovarian or low-tubarian detorsion. In these ovaries, parenchymal tissue was found to be normal, but the size of the ovaries was smaller in 8 ovaries compared to the contralateral ovaries. In 2 patients, although the ovaries had blood flow in the control doppler US, it was observed that the ovarian dimensions were reduced compared to the contralateral ovary and the parenchymal tissue was thinned and the heterogeneity increased. In 2 patients, it was reported that the blood flow of the ovary was suspicious in the postoperative control US.

Discussion: Although organ loss after torsion is related to the degree and duration of torsion, the current approach in the treatment of ovarian torsions is to protect the ovary after detortion. Today, this procedure is mostly done laparoscopically.

As a result, ovarian torsion is a pathology that requires urgent surgical intervention and can result in organ loss. Although blood flow is considered suspicious in Doppler US, considering the clinical findings, it should not be delayed in making the decision for exploration. Lately, ovarian protective laparoscopic detorsion is often preferred, regardless of the appearance and dimensions of the ovary. Ultrasonographic monitoring after ovarian sparing surgery can help us understand the functional effectiveness of that ovary.

SS95

OUR APPROACH TO CHİLDHOOD OVARIAN MASSES

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Introduction: 1-2% of the masses encountered in childhood are adnexal masses. The vast majority of these masses are of ovarian origin and bening. The purpose of our study is to discuss the nature, surgical treatment options and outcomes of ovarian masses in our clinic.

Method: Our study is a retrospective evaluation of the clinical records of 55 patients who were admitted to our clinic with the diagnosis of non-torsional ovarian mass between 2004-2019. The analyzed parameters are age and complaint at admission, physical examination findings, ultrasonography (US) and Magnetic Resonance Imaging (MRI) findings, tumor markers, surgical methods, pathology results and ultrasonographic evaluation of ovaries in the postoperative period.

Results: The average age of the patients is 13 years (1-17 years). All of the cases were admitted to our clinic with the complaint of abdominal pain. There were additional menstrual irregularities in 23 patients and nausea and vomiting in 4 patients. In physical examination, sensitivity in the lower quadrants of the abdomen was found most frequently. All cases were evaluated with US and 32 patients were additionally evaluated with Computed Tomography or MRI. Level of alpha feto protein was high in only 2 patients. 55 patients were operated with the diagnosis of ovarian mass. In 9 of the cases, it was found that torsion associated with the mass was accompanied. 20 patients were treated by open surgery. 33 patients underwent laparoscopic surgery and percutaneous aspiration by ultrasound guidance was performed in 2 patients. Seven patients underwent oophorectomy and 48 patients were operated by ovarian sparing surgery. In histopathological evaluation; Two patients were diagnosed with dermoid cyst, 6 patients with mature cystic teratoma, 46 patients with follicular ovarian cyst, and 1 patient with mucinous cystadenoma. In histopathological evaluations of oophorectomy materials mature cystic teratoma was detected in 3 patients, tuba-ovarian abscess in 1 patient, secondary changes to torsion and follicle cyst in 3 patients. In 48 cases with ovarian sparing surgery, it was found that the ovaries remained viable but there were changes in the ovary parenchyma.

Discussion: Ovarian masses are rare in childhood and most are benign. In the series presented, all of the cases are bening and most of them are follicular cysts. Although it has been reported that tumor markers such as alpha feto protein (AFP) and beta HCG in ovarian masses are more sensitive than other tumor markers in childhood, AFP elevation was detected in only 2 cases.

The surgical approach to ovarian masses varies according to the nature of the mass. However, considering that these masses are mostly benign in childhood, it is more logical to prefer ovarian protective approach. This is the general trend in recent years. In the series presented, ovarian sparing surgery was performed in 90.5% of the patients.

As a result, the vast majority of ovarian masses in childhood are benign natured. Therefore, ovarian sparing surgery seems to be effective and reliable. However, it is important to observe the long-term results of this patient group.

SS98

PREVALANCE OF CELIAC DISEASE IN CHILDREN WHO ARE MONITORED DUE TO IRON DEFICIENCY ANEMIA

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Objective: Gastrointestinal diseases should be taken into account for pediatric patients with iron deficiency who have built resistance to orally administered iron supplements. Therefore, Celiac disease with iron deficiency as the most common extraintestinal finding should also be considered in the differential diagnosis. The aim of this study is/was to investigate the incidence of celiac disease in children with iron deficiency.

Method: Between January 2018 and January 2019, 270 patients between the ages of 2 and 18 who were admitted to Gaziosmanpaşa Training and Research Hospital Pediatric Gastroenterology Clinic and diagnosed with IDA(Iron deficiency anemia) were included in the study retrospectively. The clinical findings, laboratory test results and endoscopy results of the patients who underwent endoscopy were evaluated.

Results: Of the 270 patients with iron deficiency anemia, Marsh staging was carried out according to the endoscopic biopsy results on 32 cases which turned out positive for celiac disease in the screening test. There was a statistically significant difference between Marsh stage 0 and Marsh stage 3c and hemoglobin and hematocrit values (p=0.033, p=0.015). Since the number of patients was insufficient, statistical analysis could not be performed for other stages.

Conclusion: Anemia is the most common hematologic abnormality of CD and its prevalence varies between 12-69% in diagnosis, and may even be the first clinical finding of subclinical/silent CD. In the first prevalence study conducted on children in Turkey, the CD was found in 4.4% of patients with IDA and in the most recent study, this rate was found to be 21.3%. In our study, when seropositivity of CD was detected, a biopsy was performed in 20 of 32 patients (62%). When the seropositivity of CD and biopsy results were evaluated together, biopsy-proven CD was diagnosed in 20 (7.4%) of 270 cases.

Table 1. Mean values of biochemical parameters of 2 groups with positive and negative celiac disease screening tests.

	CD screening test	Number of cases (n)	mean±SD	p value
Iron (µg/dL)	positive	32	15,7±7,8	0,14
	negative	238	17,9±6,1	
TICC (µg/dL)	positive	32	436,1±57,2	0,42
	negative	238	448,2±68,1	
Ferritin (ng/mL)	positive	32	3,7±2,6	0,02
	negative	238	5,5±3,7	

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SS99

EVALUATION OF THE RELATIONSHIP BETWEEN NEUTROPHIL-TO-LYMPHOCYTE RATIO, MEAN PLATELET VOLUME AND PLATELET-TO-LYMPHOCYTE RATIO IN CELIAC DİSEASE

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Introduction: Celiac disease is an autoimmune systemic disease caused by persistent sensitivity to gluten in the diet in individuals with genetic predisposition. Mean platelet volume (MPV), neutrophil-to-lymphocyte ratio (NLR), and platelet-to-lymphocyte ratio (PLR) have recently been investigated as new inflammatory markers in many autoimmune diseases. To our knowledge, there is no study on CD which is an autoimmune disease. We aimed to evaluate the relationship between MPV, NLR, PLR, and celiac disease.

Methods: This study was conducted between March to October 2019. Celiac disease patients with villous atrophy who were newly diagnosed and followed up in our hospital were included in the study. Healthy children were selected through children who applied to hospital for routine check-up. NLR and PLR were calculated as the ratio of neutrophils to lymphocytes and platelets to lymphocytes, respectively.

Results: A total of 108 patients with celiac disease confirmed by duodenal biopsy were included in the study. Of the celiac patients 55 (50.9 %) were female and the mean age was 8.6±2.37 (range, 6-10.2) years. The mean level of MPV in patients with celiac disease was 9.1±0.1 (range, 6.6-10.4), NLO was 1.92±0.27 (range, 1.78-2.1) and PLO was 136.8±6.7(range, 123-142). The healthy control group (n=50) comprised 31 (62%) females and with a mean age of 7.6±2.37 years (range, 5-12.1years). The serum MPV level of the children was 9.3±0.3 (range, 6.9-10.9), NLO was 1.44±0.14 (range, 1.1-1.8) and PLO was 123.5.±5.7 (range, 113-132). The NLO and PLO of celiac disease patients were significantly higher than healthy children ($p=0.001$, $p<0.001$, respectively). This differences were more significant in comparison of Marsh 3c with the healthy control group ($p<0.001$, $p<0.001$, respectively). There was no statistically significant difference, mean level of MPV between groups ($p=0.236$). When NLO levels of the children with celiac and healthy group were evaluated by ROC analysis, the area under the curve was 0.643 (95% CL: 0.558-0.728), cutoff=1.89 (sensitivity 60%, specificity 71%, $p=0.002$).

Conclusion: In this study, the NLR and PLO levels of children with celiac disease were significantly higher than those healthy group. It is thought that NLR and PLO, which are easily applicable and inexpensive biomarkers, can be used safely in demonstrating inflammation in celiac children. Further studies are needed in order to use NLR and PLO for screening in pediatric patients with celiac disease.

Keywords: Celiac disease, mean platelet volume, neutrophil-to-lymphocyte ratio, platelet-to-lymphocyte ratio

SS101

IN THE INFLAMMATORY BOWEL DİSEASE OF THIAMINE HYDROCHLORIDE EFFECT ON THE LIVER

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Introduction: Inflammatory bowel diseases (IBD) are important causes of morbidity over the past 30 years but mortality rates are generally low. Ulcerative colitis (UC) is a disease characterized by chronic and recurrent inflammation that can progress with variable systemic and extraintestinal involvement. The majority of UC patients have been damage to the liver and biliary tract. Thiamine hydrochloride (vitamin B1) is an important type of vitamins that are involved in many cellular processes, such as the synthesis of amino acids and monosaccharides as energy in the nervous and digestive systems. Thiamine especially plays an active role in the glucose metabolism of liver. Its antioxidant effects have been shown in many studies. However, there is no studies examining the effect of thiamine on liver damage in the ulcerative colitis.

Method: This study was approved by the Dokuz Eylul University Animal Experiments Local Ethics Committee (Protocol no. 19/2016). Male Wistar rats (n=28) were randomly into four separete groups. Physiological saline solution (SF)-treated Control group (C, n=7), Thiamine Group (TH, n=7), Ulcerative Colitis Group (UC, n=7) and Thiamine-treated Ulcerative Colitis group (UC/TH, n=7). Sections were stained with hematoxylin-eosin (H&E), Periodic Acid Schiff Stain (PAS), Gomori Reticulum. Liver damage eveluated as immunohistochemical that was performed active caspase 3, Bcl-2, TNf α and IL-6 positive cells by semi quantitative score. Tissue MDA, GSH and GPx levels were measured with commercial kits by spectrophotometric method.

Results: We found increased inflammatory cell infiltration between hepatocit and sinüzoidal area in the UC group. We observed increased congesion in the portal area, and then, dilated vascular structures, fibrosis, mononuclear cell infiltration, vacuolization. Pyknotic nucleus and nuclear degeneration were found in the liver tissue of the UC group. Also, glycogen accumulation in the hepatocyte cytoplasm decreased compared to the C group. Increasing fibrosis in the UC group, increased reticular fibrils was observed in vascular circumference, portal area and parenchyma. In the UC/T group, the parenchymal integrity continues and the severity of mononuclear cell infiltration decreased compare to the UC group. Bcl-2 positive cell activation significantly decreased in the liver tissue of UC group compared to the C, T and UC/T groups. Active caspase-3 positive cell was significantly diminished in the UC/T group compare to the UC group and reducing was observed in the portal area and vena centralis ($p<0.001$). Tnf α and IL-6 positive cells activation was increased in the UC group ($p<0.05$). A significant decrease was detected in the UC/T group of Tnf α and IL-6 positive cell activation compared to the UC group ($p<0.001$). MDA levels were found significantly higher in the UC group compared to the C and T groups ($p=0.003$, $p=0.022$). In the UC/T group of MDA levels were significantly lower than the UC group ($p<0.001$). GSH levels were significantly lower in the UC group compared to the C group ($p=0.004$). It was significanly higher in the UC/T group than in the UC group ($p=0.035$). GPx levels were significantly lower in the UC group than in the C group ($p=0.024$).

Conclusion: It was determined that Thiamine Hydrochloride has protective effect against oxidative damage caused by dextrane sulfate in liver damage.

SS102

THE RELATIONSHIP OF CARBOHYDRATE COUNTING METHOD WITH METABOLIC CONTROL IN CHILDREN AND ADOLESCENTS WITH TYPE 1 DIABETES

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Objective: Insulin, nutrition and exercise are the basis of diabetes treatment. Therefore, nutrition and meal planning is important for the growing and developing children and adolescents with diabates. Carbohydrate counting is a meal planning technique used to treat children and adolescents with Type 1 diabetes to optimize postprandial glycemic control. That is the adjustment of the bolus insulin dose to the carbohydrate content of the meal in diabetics receiving intensive insulin therapy. This study was conducted to show the relationship between carbohydrate counting method and metabolic control in children and adolescents with Type 1 diabetes.

Method: This study was carried out between January-July 2018 in the Ministry of Health University Izmir Dr Behçet Uz Children and Surgery Training and Research Hospital Pediatric Endocrinology Outpatient Clinic. It was conducted with 66 Type 1 diabetic children and adolescents (33 boys and 33 girls, aged 10-18 years). 3-day fasting and postprandial blood glucose were obtained from the blood glucose measurement books of the individuals who participated in the study. Biochemical findings (HbA1c, total cholesterol, LDL cholesterol, HDL cholesterol, triglyceride) were taken from patient files and these values were evaluated according to the references in the ISPAD (International Society for Pediatric and Adolescent Diabetes, 2018).

Results: 36 (55.5%) of the participants applied the exchange system, while 30 (45.5%) of them performed a carbohydrate count. The mean fasting and postprandial blood glucose levels in all meals were found to be lower in the carbohydrate counting group compared to the group applying the exchange system, and this difference was statistically significant in the morning, noon and evening fasting blood glucose values ($p<0.05$). When the biochemical findings were evaluated, the average HbA1c level of children and adolescents (7.99±1.18%) who performed carbohydrate counts was found to be significantly lower than those who applied the exchange system (8.77±1.49%). The children in carbohydrate counting group had lower serum triglyceride, total cholesterol and LDL cholesterol levels and higher HDL cholesterol levels than those with the exchange system; however, these differences were statistically insignificant ($p>0.05$).

Conclusion: Training of carbohydrate counting by a dietician and regular
follow-up of these individuals with type 1 diabetes may help improving metabolic control.

Keywords: Carbohydrate counting, metabolic control, Type 1 diabetes

SS103

WHAT IS THE IMPORTANCE OF THE RECTUM DIAMETER IN THE DIAGNOSIS OF PEDIATRİC CONSTIPATION?

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Introduction: Pediatric bowel dysfunction, especially constipation is a common problem that should be addressed early, as it may continue throughout adulthood, leading to significant morbidity [1]. Only 5% of all cases of constipation are due to organic causes and 95% are functional [2]. There is no simple, unequivocal test to diagnose functional constipation [3]. It is stated that the ultrasonographic detection of rectal dilation is the best way to objectify constipation [4-6]. It is common for children with lower urinary tract dysfunction (LUTD) to have constipation together [7]. In this study, it was aimed to evaluate the rectal diameters of children with LUTD and constipation with ultrasound.

Methods: The records of patients with LUTD between June 2016 to June 2019 were examined. Children without any neurological or anatomical/structural problem were included in the study. These patients were evaluated with the Rome-IV criteria and Bristol stool form scale for functional constipation [8]. The transverse rectal diameter of patients with a diagnosis of constipation was assessed by pelvic ultrasonograpy. As used in the current literature the cut off for rectal dilatation was set at 30 mm [3,5].

Results: A total of 239 children, ages 5 to 13 years (the mean age at presentation was 9.13±1.98 years), fulfilled the inclusion criteria and were therefore enrolled into this study. There were 131 girls (54.8%) and 108 boys (45.2%) in the study. Overall, in the initial assessment of patients, functional constipation was detected in 95 patients by using Rome-IV criteria and Bristol stool form scale. Of these 95 patients, there were 56 (58.9%) children with rectum transverse diameter of 30 mm or more (between 30.2 and 41.9 mm). There were 39 (41.1%) patients with functional constipation but rectum transverse diameter less than 30 mm. In these patients, the rectum transverse diameter was determined between 16.1 and 29.2 mm.

Conclusion: There are no good definitions of functional constipation [2]. Previously, some authors have advocated for the use of abdominal radiography to assess the diagnosis of constipation despite a clear lack of evidence in the literature [9]. Abdominal radiography was not used in this study. Another method recommended for the diagnosis of functional constipation is to measure the rectum transverse diameter with pelvic ultrasound [2,3]. Measurement of rectal diameter as an indicator of constipation has been proposed by several authors [3,4]. It is suggested that the best way to diagnose constipation is to show rectum dilatation with pelvic ultrasound [4-6]. Patients included in this study and diagnosed with LUTD were routinely evaluated using Rome-IV criteria and Bristol stool form scale. Moreover, pelvic ultrasound was routinely performed to evaluate the relationship between the bladder and bowel and to measure the rectum diameter. Because constipation is critical, given the strong link between bladder and bowel dysfunction [7,9]. Even today, the term bladder and bowel dysfunction is used for these situations [1,7]. In this association, it is recommended to treat constipation first [1,7,9]. Therefore, it is very important not to miss the diagnosis of constipation. In the current study, although it is suggested that the best way to recognize constipation is to detect rectal dilation with pelvic ultrasonograpy, the result of this study did not overlap with this situation. In more than 1/3 of the patients in this study (41.1%), rectum diameters were detected within the normal range, although functional constipation was diagnosed. In other words, 39 patients diagnosed with constipation using Rome-IV criteria were not in the constipation group according to the pelvic ultrasound criteria.This result suggested that it may not be reliable to diagnose constipation by measuring the rectum transverse diameter in this patient group.

Keywords: Constipation, rectum, bladder, ultrasonography

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SS104

EVALUATİON OF EGFR LEVELS IN OBESE CHILDREN

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Aim: Obesity-related complications increase with the increase in the prevalence of obesity and kidneys are one of the most important organs affected in this context. In this study, we planned to evaluate renal function by using estimated glomerular filtration rate (eGFR) levels, which are practical and useful for assessing renal function.

Methods: The records of 70 patients (40 boys, 30 girls) aged 6-18 years who were followed up with simple exogenous obesity in Behçet Uz Children's Hospital Pediatric Endocrine Policlinic were examined. The control group consisted of 70 healthy children (32 boys, 38 girls) at the same age and sex. Estimated glomerular filtration rate (eGFR) was calculated using the modified Schwartz's formula [eGFR (mL/dk/1.73 m^2)=[0.413 x hastanın boyu (cm)]/serum kreatinin (mg/dL)]. Hyperfiltration was defined as eGFR ≥140 mL/min/1.73 m^2.

Results: Hyperfiltration was found in 35 (50%) of obese patients and 23 (32.9%) of the control group (p=0.04). The median eGFR was 140.2 mL/min/1.73 m2 in the obese group and 129.5 mL/min/1.73 m^2 in the control group (p=0.22).

Discussion: In our study, we found an increase in hyperfiltration in obese children and we found a positive correlation between hyperfiltration and BMI. In obese children, early detection of hyperfiltration is important in early diagnosis and treatment of renal function.

Conclusion: The use of eGFR, which is an inexpensive and easy to use method in obese children, may allow the prediction of renal involvement and hence consider preventive measures to be taken.

SS107

VİTAMİN D STATUS BEFORE AND AFTER WEİGHT LOSS IN OBESE CHILDREN

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Objectives: Vitamin D deficiency is a serious health issue worldwide. Studies have shown that vitamin D deficiency is much more common in obese people than in the normal population. Various hypotheses can be suggested for the reason for vitamin D deficiency in obese children. The aim of our study is to evaluate whether vitamin D accumulated in adipose tissue can cause an increase in serum 25(OH)D3 level after weight loss.

Method: This study was performed prospectively in obese children admitted to pediatric endocrinology policlinics in Kanuni Sultan Süleyman Training Hospital between December 2011 and March 2012. Cases who have dermatologic diseases, syndromes, endocrine disorders, who undergone medications affecting vitamin D and calcium metabolism and veiled women were excluded from this study. For the baseline, We examined anthropometrical measurement (weight, height, body mass index) as well as the initial level of fasting serum 25(OH)-D3, insulin, glucose and, lipids in 137 obese children in December 2011. Continued regular exercise and the appropriate diet were recommended to induce weight loss. After three months 70 patients who did not participate in regular visits, took oral vitamin D supplementation and had travel history, were also excluded. In the remaining 67 patients, the same measurements and blood sampling were repeated in March 2012. That 67 patients were grouped into those with weight loss (study group; 36 patients) and those without weight loss (control group; 31 patients).

Results: The study included 36 girls and 31 boys aged 5-17 years. Initially, vitamin D deficiency was detected in 88.1% of patients. After regular exercise and diet, vitamin D levels increased at least 12% in 63% of the study group and only in 6% of the control group. In the study group, 25(OH)D3 mean level was initially 12.59±5.69 ng/ml and after three months increased to 16,87±10,08ng/ml. The difference was statistically significant (P=0.004) in the study group. There was no statistically significant difference in vitamin D levels of the control group. Additionally, there was a moderately negative correlation between BMI(body mass index) and serum 25(OH)-D3 levels(r:-0.381). HOMA-IR value was above the cut-off level (>2.5) in 52 %(n:35) of all cases at baseline. With regular exercise and diet for three months, HOMA-IR levels decreased from 3.7±3.1 to 3.1±2.8 in the study group, whereas it increased from 2.96±2.1 to 3.3±2.1in the control group. In our data, glucose, LDL, total cholesterol levels were statistically significantly lower and HDL level was higher three months later in the study group compared to basal levels (respectively p=0.008, p=<0.001, p=0.003, p=0.007). However, there was no significant change in the control group.

Discussion: For children, it has been recommended that 25(OH)-D3 level below 20ng/ml be considered indicative of deficiency. Our study has shown that vitamin D deficiency is 88.1% in obese children in the winter season. Vitamin D deficiency has been detected in 59% of healthy children in Turkey during the winter season. Several studies report a relationship between low serum vitamin D levels and obesity. The present study supports the knowledge of lower serum vitamin D concentration in obese children although the main pathophysiology of this relationship has not been cleared yet. One of the hypotheses is that vitamin D is accumulated in adipose tissue, hence the levels of circulating 25(OH)-D3 may not reflect total body levels. 25(OH)-D3 levels increased significantly in the study group after weight loss. Conversely, it did not increase, even continued to decrease in the control group after three months. Our study supports that accumulation of 25(OH)-D3 in adipose tissue leading to a decrease in serum 25(OH)D3 level and the study shows weight loss alone increases serum 25(OH)-D3 level in obese children. Additionally, negative relationship between serum 25(OH)-D3 level and insülin resistance has been detected.

Conclusion: There is a relationship between low Vitamin D levels and obesity. We propose that obese children should be supplemented with vitamin D and high serum vitamin D levels should be maintained, along with diet and regular exercise. Some studies indicate that non-obese children with vitamin D deficiency are at increased risk for weight gain.

SS108

INITIAL SYMPTOM OF DIFFERENT DEVELOPMENTAL PROBLEMS: LANGUAGE DELAY

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Aim: We aimed to evaluate sociodemographic characteristics, risk factors, and differential diagnosis of children referred with the chief complaint of language delay.

Methods: Children ≤42 months of age, referred to a tertiary developmental-behavioral pediatrics clinic because of "language delay", "inability to speak", "delay in language", and "inability to form sentences" between January 2017–September 2018 were retrospectively reviewed. Children with previously known neurological, genetic and metabolic disesases; children with speech sound disorder only, and non-native Turkish speaking children were excluded. The developmental evaluation was conducted based on family-centered holistic developmental evaluation principles. The Guide for Monitoring Child Development, and Bayley Scales of Infant and Toddler Development 2nd edition were used for developmental evaluation. Autism spectrum disorder diagnoses were performed according to diagnostic criteria of DSM-V. Children who had difficulties in the acquisition and use of language across modalities and the difficulties which were not attributable to any sensory impairment, neurological or medical condition or cognitive impairment were defined as expressive language disorder. Cognitive and motor delay were defined as <70 points according to Mental Developmental Index (MDI) and Psychomotor Developmental Index (PDI).

Results: Most of families (78%) firstly admitted to pediatricians. At admission, 23 (10.4%) of the children could not produce any meaningful word and 124 of 186 children (66.7%) aged 24 months or older could not form two-word sentences. 7.7% (n:17) of the children were found to have age-appropriate development, while 38.7% (n:86) had expressive language disorder, 39.6% (n:88) had cognitive delay (with or without motor delay), and 14% (n:31) had ASD. 56.8% of the children did not have book. Book ownership decreased with increasing sibling count and lower parents educational level ($p<0.05$). Kindergarten/pre-school education was in only 3.2% of the children. 15.8% of the children did not have any opportunity for peer relationship such as playgrounds or parks. Most of the children (82.4%) had daily screen time above 4 hours. MDI scores were lower in children with lack of books, and parents with ≤8 years of education ($p<0.05$).

Discussion: Our study has demonstrated that serious neurodevelopmental issues such as cognitive delay and ASD should be considered and differential diagnosis should be made in children presenting with language delay. Only 38.7% of the children with language delay were found to have expressive language disorder which has an overall good prognosis. Families whose children have language delay firstly admitted to pediatricians. For this reason, pediatricians play a central role in early diagnosis and appropriate management of language delays. Therefore, all developmental domains should be evaluated with standardized tools in these children. If the child has normal hearing, age appropriate development in terms of relating and receptive language skills, parents should be adviced to improve language development such as reciprocal interaction, increasing the number of books in the home, reading to their children, decreasing "screen time" exposure, increasing opportunities for children to interact and play with their peers, early attendance to kindergarten/pre-school. Even after promoting linguistic environment, children with no language improvement, suspicion of ASD and cognitive delay should be referred for further evaluation promptly.

Conclusion: Language delay may be the initial presenting symptom of more serious neurodevelopmental problems such as ASD or cognitive delay.

SS109

EVALUATION OF CATARACT CASES DETECTED IN CHILDREN AND ADOLESCENTS IN OUR CLINIC IN THE LAST 10 YEARS

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Introduction: Congenital cataract is still one of the most important causes of treatable blindness in childhood. The incidence of congenital cataracts is 3-4/10000 and one of the most important causes of curable blindness in children [1,2]. For the treatment of congenital cataract, there is a need for a good surgery, an effective aphasia correction, properly arranged amblyopia treatment and regular follow-up to ensure that the vision axis remains open for a long time [3].

In recent years, improvements in the surgical technique, advances in the technology of the devices and intraocular lenses have made less invasive surgeries possible by making a smaller incision in cataract patients. At the same time, it has enabled more successful surgeries anatomically and functionally. However, preventing blindness due to congenital cataracts or reducing/preventing vision loss also depends on when this surgery is performed and how the patient is followed.

The aim of this study was to investigate the characteristics of pediatric patients who were diagnosed as cataract in the ophthalmology clinic of our hospital.

Methods: In this retrospective study; data of pediatric cataract patients between the years of 2009-2019 in Ophthalmology Department of Behcet Uz Children's Hospital were analyzed. From the data in the system, the age (months), cataract type and etiologic status of the patients at the time of cataract detection were examined. The results were analyzed.

Results: Thirty (40.5%) of the 74 patients included in the study were female and 44 (59.5%) were male (p=0.34). The mean age at the time of diagnosis was 57.3±46.6 (1-168) months. Of all cases, 43 (58.1%) were congenital and 31 (41.9%) had juvenile cataract. Partial cataract was detected in 47 (63.5%) patients and total cataract was found in 27 (36.5%) patients. Cataract was unilateral in 51 (68.9%) patients and bilaterally in 23 (31.1%) patients (Table 1). In addition, cataract was accompanied by microftalmia in 2 patients and iris coloboma in 2 patients. Four patients had concomitant glaucoma and 7 had nystagmus.

Table 1. Distribution of cataracts by gender according to etiology, intensity of involvement and number of affected eyes.

	Female	Female	Total
Congenital / juvenile cataract n (%)	20 (66.7%) / 10 (33.3%)	20 (66.7%) / 10 (33.3%)	43 (58.1%) / 31 (41.9%)
Partial / total cataract n (%)	19 (63.3%) / 11 (36.7%)	19 (63.3%) / 11 (36.7%)	47 (63.5%) / 27 (36.5%)
Unilateral / bilateral cataract n (%)	19 (63.3%) / 11 (36.7%)	19 (63.3%) / 11 (36.7%)	51 (%68.9%) / 23 (%31.1%)

Discussion: Any lens opacification that occurs at birth or in early childhood is described as congenital cataract. The etiologies of congenital cataracts are a great variety. Approximately 50% of congenital cataracts are affected by mutations in protein-coding genes that are responsible for lens structure [4]. In many cases, the etiology remains unknown. A careful evaluation of the child's general health status and consultation with the pediatrician may be essential to rule out systemic relationships and syndromes. Maternal infection is also one of the leading causes of pediatric cataracts. Many specialists advise genetic counseling in the evaluation of hereditary cataract. Congenital cataracts can involve one or two eyes. When unilateral congenital cataract is compared with bilateral cataract, accompanying ocular anomaly (lenticonus, persistent fetal vessels, etc.) is more likely to occur. Most bilateral congenital cataracts are also idiopathic, and unlike unilateral ones, other etiological causes are also common, mental retardation is relatively common [5,6].

During the 7-year period between 1993 and 2000, Yaman et al. encountered 72 pediatric cataract patients in the same region [7]. In our study, 74 pediatric patients with cataract who were admitted to our clinic between 2009-2019. This suggests that there is no significant increase in the number of pediatric cataracts in the future. It may also be because pediatric cataracts are of genetic and metabolic origin rather than environmental factors.

Pediatric cataracts have also been reported to have improved visual acuity even after cataract operation after nystagmus. In our 7 patients, nystagmus was present in addition to pediatric cataract.

It should not be ignored that cataracts are treatable and their complications can be stopped when dealt with in time. Since

the effectiveness of cataract surgery in infancy was first described, there has been a dramatic improvement in the visual prognosis of affected children [8]. Most children with cataracts need surgery, and few can be treated conservatively. Some can be managed with close observation and treatment of accompanying amblyopia [9].

Amblyopia due to congenital cataract is more common in developing countries than developed countries as a result of diagnosis, timing of surgery and follow-up deficiencies [10].

All newborns, infants, and children should receive a red reflection test before discharge from the neonatal unit and in all follow-up examinations. If abnormal reflection is detected, the child should be referred for an eye examination [11].

Conclusion: Cataracts in children may develop secondary to genetic and metabolic diseases. Regular and timely eye examinations can intervene early and this may have a positive effect on the long-term visual quality of the patients. It can also contribute to the detection of systemic diseases through etiological investigations.

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SS112

EVALUATION OF PARENTS' INFORMATION ABOUT VACCINES

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Introduction: In this study, it was aimed to evaluate the information of parents who applied to Family Medicine outpatient clinic number 1, Menemen, Izmir for any reason.

Methods: The information about the vaccines of the parents who applied Family Medicine Outpatient Clinic number 1, Menemen, Izmir was evaluated as a descriptive cross-sectional study between date of 01.11.2019-01.31.2020 for any reosan. The routine vaccines (hepatitis B, BCG, DaTB-İPA-Hib, KPA, KKK, OPA, hepatitis A, chickenpox) administered by the T. C. Ministry of Health and vaccinations not in routine recommended in childhood (influenza, rotavirus, meningococcal, human papilloma virus vaccines) questionnaire form was applied. The data were analyzed by entering SPSS 16.0 statistical computer program. Statistical significance level was accepted as P <0.05.

Results: Of the 64 parents whose data were analyzed, 58 (90.6%) were mothers and 6 (9.4%) were fathers. The average age is 29.75±6.71. 47 (81.0%) of the mothers were housewives and 5 (83.3%) of the fathers were workers. Parents are predominantly low income and low education level, it was observed that 25 (35.8%) heard routine vaccines. It was observed those who know the most about routine vaccines,mothers who are housewives (81.2%) (P=0.82), who have secondary and lower education (64.0%) (P=0.03) and have 3 or more children (36.0%). When the parents' routine vaccination information was evaluated, it was seen that they were mostly aware of the measles vaccine (31.2%). It was observed that 3 (4.7%) of the parents heard of non-routine vaccines and were mostly aware of the Influanza and human papilloma virus vaccine (3.1%).

Conclusion: It was observed that parents did not have sufficient information about vaccines. It is important for healthcare professionals to inform parents about vaccinations and raise awareness.

Keywords: Vaccination, parent, health

SS113

THE EVALUATION OF SELF-PHYSICAL IDENTIFICATION, SOCIAL SUPPORT AND INTERNET ADDICTION IN ADOLESCENTS IN EXOGEN OBESITY

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Introduction: The prevalence of obesity in children and adolescents is rapidly increasing in our country as well as in the world. More details need to be elucidated for the solution of these two increasing public health problems. In addition, body perception, which is an important element of self-confidence and support in obese adolescents, is very important. In this study, we aimed to investigate the difference between internet addiction, social support, and physical self-description between obese and non-obese adolescents.

Methods: In our study, adolescents with body mass index over +2SDS were included as the study group and 64 non-obese adolescents without a chronic disease as the control group. Both groups were asked about to Marsh Physical Self-Description Questionnaire, Günüç Internet Addiction Scale, Social Support Scale Questionnaires were completed by the participants. Then, while the scores were compared in terms of obese and non-obese, correlation analyzes were carried out including sub-dimensions of these scales by considering the whole group.

Results: In this study where obese adolescents were compared with their healthy peers, no statistically significant difference was found in terms of internet addiction and social support. All the scores related to general body perception were negative in the obese group. Regarding the correlational analysis results, there was a negative correlation between the social support subscales and Internet addiction subscales. In addition, the social support scores were decreasing with all internet addiction subscale scores.

Conclusion: When our findings are evaluated; it was determined that feeling physically adequate and exercising in adolescents may decrease their susceptibility to internet addiction. It was observed that as the social support received from the mother, father and teacher decreased, the susceptibility to internet addiction increased.

Keywords: Adolescents, internet addiction, obesity, self-identification, social support

SS114

DO INTRATUMORAL AND PERİTUMORAL ADC (APPARENT DIFFUSION COEFFICIENT) VALUES HAVE A ROLE IN THE DIAGNOSIS OF PEDIATRIC BRAIN TUMORS?

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Objective: In childhood second most frequent tumors are the central nervous system tumors. Medical imaging modalities can cause better survival rate by achieving better treatment choices If the diagnostic accuracy of medical imaging increases and correlates with histopathology by preventing over and under treatments. In this study, we aimed to differentiate low- and high-grades in pediatric brain tumors at preoperative period and to determine the cut-off values between them by using non-invasive and easily applicable ADC (Apparent Diffusion Coefficient) measurements.
Methods: All of the 56 pediatric patients included in this retrospective study had lesions >1 cm in diameter on magnetic resonance image (MRI) and all the diagnosis were confirmed by histopathology. Intratumoral and peritumoral ADC values and ADC ratios were measured in diffusion weighted MRI.
Results: The mean age of the 56 pediatric cases with a histopathologically confirmed primary brain tumor was 9,23±5,31 years. ADC values were significantly lower in high-grade tumors than low-grade tumors ($p < 0.05$). ADC cut-off value of these two groups was 1.1*10-3mm^2/s. ADC ratios were significantly lower in high-grade tumors than low-grade tumors ($p < 0.05$). The cut-off value of ADC ratio between these two groups was 1.0. Peritumoral ADC values in low-grade tumors were higher than high-grade tumors.
Conclusion: In clinical practice, the measurement of the average ADC value and the ADC ratio are very easily applicable and time saving parameters. In the differentiation of low and high-grade pediatric brain tumors, cut-off values of 1.1*10_3mm2/s for ADC Value and 1.0 for ADC Ratio may be useful. However, as previously described in the literature, these values should never be used alone in the determination of low and high-grade tumors, since there is a considerable overlap between tumor types.

Keywords: Apparent diffusion coefficient; Brain Tumor; magnetic resonance image

SS115

DETECTION OF VIRAL RESPIRATORY TRACT AGENTS IN CHILDREN IN THE WINTER SEASON OF 2019-2020; WHAT HAS CHANGED COMPARED TO THE PREVİOUS YEAR?

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Aim: Viruses are one of the major agents of lower and upper respiratory tract infections. The aim of this study is to examine the distribution of viral respiratory tract agents detected in children in the winter season of 2019-2020 and to compare with the same period of the previous year.

Method: Influenza virus (INF) type A ve B, respiratory syncytial virus (RSV) type A/B, parainfluenza virus (PIV) type 1-4, coronavirus (CoV), metapnomovirus (MPV), rhinovirus (RV), enterovirus (EV), adenovirus (ADV), bocavirus (BoV) were investigated by multiplex PCR method (Bosphore, Respiratory pathogens panel kitv4, Anatolia, Turkey) in nasopharyngeal swab samples taken from children between November-December 2019 and January 2020.

Results: A total of 220 patients were sampled, 157 viral respiratory tract agents were positive in 144 patients (65%). Half of the patients were female and half were male and mean age was 3.6. The most common agents were INF A (H1N1) and INF B. While INF was never seen in November, only H1N1pdm09 was seen in December. In January, both INF A H1N1pdm09 and INF B were seen. While INF B was not seen in the winter season of the previous year, 46 patients had INF A (H3N2). The another most common viral agent in this winter season is RV. The distribution of other agents and their comparison with the previous winter season can be seen in Table 1. Compared to the previous year, INF B increased statistically but RSV, BoV, PIV decreased ($p < 0.001$).

Conclusion: Respiratory viral agents distribution, especially INF subtypes, may change every season. Children admitted to our hospital, INF B increased significantly in the winter season of 2019-2020 compared to the previous year. In INF A, while H3N2 was dominant in the previous year, H1N1pdm09 was predominantly this year. These data are reported by Ministery of Health Infectious Diseases Department is compatible with weekly influenza surveillance reports. Surveillance of respiratory viral agents will reduce the use of unnecessary antibiotics and epidemiologically, it is important in terms of contributing to country data.

Keywords: Respiratory viruses, child, surveillance, influenza

Table 1. The distribution of viral respiratory tract agents and their comparison with the previous winter season.

	Nov 2018	Dec 2018	Jan 2019	Winter 2018-9	Nov 2019	Dec 2019	Jan 2020	Winter 2019-20	P value (<0.001)
Total patients	33	78	110	221	42	55	123	220	
Positive patients	22	70	92	184	29	34	81	144	
INF A	0	10 (H3N2)	36 (34H3N2,2 INFA9	46	0	12 (H1N1)	34 (33H1N1, 1INFA)	46	
INF B	0	0	0	0	0	0	24	24	+
RSV	0	31	57	88	0	0	7	7	+
RV	19	44	13	76	22	16	10	48	
BoV	4	14	14	32	1	2	0	3	+
PIV	1	8	24	33	3	3	3	9	+
ADV	3	8	5	16	3	1	3	7	
CoV	0	0	4	4	0	1	0	1	
HEV	3	4	0	7	2	3	0	5	
MPV	0	0	2	2	2	1	4	7	

INF A/B: Influenza virüs type A ve B; RSV: Respiratory syncytial virüs; RV: Rhinovirüs; BoV: Bocavirüs; PIV: Parainfluenza virüs; ADV: Adenovirüs; CoV: Coronavirüs; EV: Enterovirüs; MPV: Metapnomovirüs

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AMBLYOPİA EPİDEMİOLOGY İN CHİLDREN AND OUR TEATMENT RESULTS

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Aim: We aimed to evaluate the demographic characteristics, visual acuity before and after treatment and treatment results in children with amblyopia.

Method: Between January 2016 and December 2019, the records of patients between 3 and 10 years old who were followed up with the diagnosis of amblyopia and who had no strabismus in the Pediatric Ophthalmology and Strabismus Unit of İKÇÜ Atatürk EAH Eye Clinic were evaluated retrospectively. Fifty patients were included in the study. The amblyopia criterion was considered to be the best corrected visual acuity ≤0,8 with Snellen chart or at least 2 rows of difference between the visual acuities of both eyes. Anisometropy criterion was accepted as a ≥1 D difference between the two eyes in a spherical or cylindrical equivalent. As a treatment, correction of the refractive error and occlusion therapy were applied.

Results: 25 of the 50 cases included in the study were female (50%) and 25 (50%) were male. The mean age of the cases was 6.11±1.81. It was determined that 32 of 50 patients with refractive error had anisometropia and 18 of them had amblyopia due to high refractive error. Most often, 17 patients had amblyopia due to anisometropic astigmatism. The mean visual acuity of the patients was 0.35±0.19, and the mean visual acuity after treatment was 0.75±0.24 ($p < 0.001$). When the treatment responses of the two groups were compared, the baseline mean visual acuity was 0.38±0.17 and the last mean visual acuity was 0.80±0.19 in those with amblyopia due to high refractive error ($p < 0.001$). In patients with anisometropic amblyopia, the initial mean visual acuity was 0.33±0.20 and the last mean visual acuity was 0.72±0.26 ($p < 0.001$). When anisometropic and ametropic groups were compared, there was no statistically significant difference between the two groups in terms of visual acuity.

Conclusion: One of the most common health problems in childhood is eye diseases. In addition to the problems such as a decrease in school success and an increase in home or sports injuries, uncorrected refractive errors in the child age group may cause amblyopia, unlike adults. Amblyopia, which can result in permanent vision loss if not treated properly and on time, is an important health problem that can affect all life. With eye scans, it is possible to recognize these diseases at an early stage and start their treatment.

Keywords: Amblyopia, child, eye

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EVALUATION OF THE EFFECTS OF INSTRUMENTAL DEAD SPACE ON MECHANICAL VENTILATION

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Introduction: The purpose of mechanical ventilation (MV) is to partially or completely support the patient's respiratory workload using a mechanical ventilator. Meanwhile, physiological dead space is a term used to describe the region where gas exchange in the lung does not occur [(1)]. An instrumental dead space (DSi) is added to the physiological dead space (DSp) during MV. The lower the instrumental dead space tidal volumes (TV) added, the more it affects MV. In addition, PEEP also affects DS ventilation in physiological conditions [(2)]. Our aim was to examine the effect of Dsi on MV.

Methods: This study was performed between 1-30 May 2019 using B&B test lungs. In the study, respiratory parameters of a male child, approximately 1 year old, 78 cm in length and ideal body weight (IBW) of 10 kg, were modeled. Firstly, static compliance (Cs) and static resistance (Rs) values were reached in the test lung according to the model. Then, the system was tıtrated with an amount of CO_2 appropriate to the patient's IBW in the amounts regulated by the Sierra Mass Flow Controller (with accuracy of±2.0 of full scale for 100M from 201-300 slpm) via the T-tube and CO_2 diffuser. After stabilizing both the lung mechanics and $EtCO_2$ values on the patient model, the model was ventilated using two different breathing circuits. In order to reach the same minute ventilation during ventilation with both respiratory circuits, volume-targeted pressure regulated mechanical ventilation mode and equal breathing rate (RR) and TV target were used. Measurements were repeated 5 times with one-day intervals in accordance with the cross-over study design. Sequencing from opaque envelopes prepared before each measurement was used for randomization of the measurements. Cs, Rs, $EtCO_2$, PEEP,PIP, Ti, Te values of each breathing circuit were taken as the mean and standard deviation of repeated measurements. For the measurement of EtCo2 values we have used two different methods [(3,4)]. The data acquired during the crossover phases were assessed for the distribution and therefore the continuous data were expressed either in mean and standard deviation or median and interquartile range. Wilcoxon test were used to analyze the data.

Results: Among the respiratory circuits tested in the study, Dsi1 was measured as 25 mL and Dsi2 as 11 mL. Both Dsi differences (Dsi1-Dsi2=ΔDSi)=15 mL were calculated. There was no statistically difference between the Cs values reached in both cases. (Cs1=1.07 mL/cmH_2O/kg, Cs2=1.1 mL/cmH_2O/kg; p=0.78) However, the resistance of the first breathing circuit used was higher than the second one (Rs1=18.4 cmH_2O/L/s, Rs2=21.9 cmH_2O/L/s; p=0.012). On the contrary, the Alveolar ventilation (V'alv) value measured by the first respiratory set was lower compared to the second. (V'alv1=1.95±0.4 L/m, V'alv2=1.84±0.7 L/m). Since other respiratory parameters (Ti, Te, Ps, PEEP, PIP) were not changed, there was no statistical difference between them.

Discussion: The increase in Dsi values in the model we used in our study caused a decrease in the V'alv value in the model. To achieve the same alveolar ventilation in the model, it is necessary to increase either RR or TV, similar to that of the clinic [(3,5)]. However, especially the increases in RR cannot affect V'alv values linearly [(6)]. For this reason, patients should either use breathing sets with low DSi value or avoid using fittings and HME filters that are likely to increase DSi when using a low DSi is not possible. DSi will be relatively higher in neonatal and infant patients compared to older population as the patient gets smaller in size. Therefore, clinicinas should be more alert in this smaller patient group.

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A RETROSPECTIVE ANALYSIS OF THE CASES DROWNING AND NEAR-DROWNING IN A PEDIATRIC INTENSIVE CARE UNIT- 2 YEARS EXPERIENCE

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Objective: In this study, we aimed to contribute to literature by examining the clinical features of the hospitalized cases involving drowning and near-drowning in the pediatric intensive care unit (PICU).

Methods:A total of 11 drowning and near-drowning cases who were younger than 18 years and were admitted to PICU in 2018 and 2019 were examined retrospectively. The cases were evaluated for age, gender, the time and location of hospital admission, the type of accident, the duration of intensive care, the requirement for inotropics, antiepileptics, antibiotics, transfusion, and ventilator, complications and mortality rates.

Results: The average age of patients was 10,36±4,50 (range 5-17 years) years; nine of them were male (%82). 55% of the drowning took place in the pools. There was respiratory distress in five cases. Four of them had totally respiratory depression. The median value of the Glasgow Coma Scale was 13 (minimum-maximum value: 3-15). All of the cases were hypothermic. There were metabolic acidosis in three and thrombocytopenia in two patients. Oxygen saturation was below 92% in six cases. Pneumonia occurred in four patients and convulsions in one patient. Antibiotherapy was given to six patients, ventilator support to three, therapeutic hypothermia to one and anticonvulsant therapy to one patient. The median value of the PICU stay was 3 days (minimum-maximum value: 1-8 days). Two of the cases died and nine were discharged with healing.

Conclusion: Drowning in water is an important cause of morbidity and mortality. It is more common in adolescent age group and male gender. Anti-drowning security measures should be taken especially in puddles, rivers, swimming pools and entertainment beaches in residential areas with high risk of drowning. Respiratory functions may return to normal limits when effective first aid is applied in these patients. Therefore, providing basic first aid training to the society will be a life-saving effort.

Keywords: Drowning, near-drowning, children, pediatric intensive care

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VACCİNATİON STATUS OF PATIENTS ADMITTED TO THE PEDIATRIC INTENSIVE CARE UNIT

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Aim: There has been an increasing trend at the anti-vaccination movement all around the world [(1)]. In addition, the presence of underlying chronical conditions and frequent hospitalizations contribute to vaccine hesitancy [(1,2,3)]. The aim of this study was to explore the vaccination status based on the national vaccination program at pediatric intensive care admissions (PICU) and if present, perfom risk analysis for vaccine hesitancy.

Methods: This prospective observational study was conducted at PICU admissions (Sivas Cumhuriyet University Hospital) between 2018 and 2019. The clinical data included patient demographics, acute and chronic settings of the sickness, the age onset of diagnosis for the underlying chronical disease, previous hospitalization, the vaccination status based on national vaccination program and parental education status. SPSS-22 was used for statistics.

Results: Of 232 PICU admissions enrolled in the study, 54 (23.3%) children had vaccine- hesitancy and 18 (7.8%) had no vaccination at all. Table 1 presents the underlying cause of vaccine-hesitancy. Parental age and education were not associated with vaccine-hesitancy (p=0.220). Children with vaccine-hesitancy were similar for gender but smaller at age compared to their counterparts (p=0.548, p<0.001). They possessed frequent hospitalizations and chronic conditions more often (p<0.001, p=0.045). Sepsis was also significant at this group (p=0.001).

The results of this study demonstrated the vaccine hesitancy of PICU admissions can be as high as 23.3% in critically-ill children requiring intensive care management. We believe the vaccination outcomes will inspire health-care providers and the families to have an enhanced common sense for vaccination delivery. The sepsis outcomes and vaccination status should also be investigated by further randomized controlled trials.

Keywords: Vaccine, pediatric intensive care unit, vaccine hesitancy, immunization

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WHEN DO WE START ENTERAL NUTRITION IN PATIENTS WITH TRAUMA IN PEDIATRIC INTENSIVE CARE UNIT?

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Introduction: Malnutrition can lead to poor clinical outcomes in critically ill patients [(1)]. Providing support for early enteral nutrition reduces the severity and complications of the disease, shortening the length of stay in the intensive care unit and affecting the patients positively. Although there is not enough evidence about when to start feeding in intensive care patients, it is recommended to start feeding within 24-48 hours in intensive care patients with hemodynamically stable [(1)]. The aim of this study was to determine the first enteral nutrition time of patients followed up in the pediatric intensive care unit due to trauma.
Methods: The cases followed up in our pediatric intensive care unit between July 2018 and June 2019 were analyzed. Of the 49 patients included in the retrospective study, demographic, radiological, clinical findings, first enteral nutrition hours, length of pediatric intensive care and hospital stay, trauma mechanisms and affected organ systems were recorded.
Results: A total of 49 patients followed up in the pediatric intensive care unit due to trauma were included in the study. The ages of the patients were between 6 months and 17 years, with a mean age of 90.78±59.70 months. The distribution by gender was as follows 38 males (77.6%). There were 31 patients (63.2%) fed within the first 24 hours of admission to the pediatric intensive care unit and 14 (28.6%) patients fed between 24-48 hours, and the number of patients with an initial enteral feeding time of over 48 hours was 4 (8.2%). The reason for not being fed within the first 48 hours was requirement an abdominal surgery performed after trauma.The length of hospital stay of those who started feeding within the first 24 hours was shorter (p=0.009).
Discussion: In cases such as trauma, sepsis, previous surgery, the energy requirement of patients increase.The development of malnutrition in patients who cannot achieve adequate nutrition as a result of increased metabolic demand during this critical period can result in morbidity and mortality [(1)]. If there are no contraindications in terms of nutrition, the enteral route, which is more advantageous than parenteral nutrition, should be preferred. With enteral nutrition, mucosal integrity is provided in the intestines, bacterial translocation reduces, infectious complications decrease, and immune response increases [(3)]. The guidelines of the American Society for Parenteral and Enteral Nutrition (ASPEN) suggest that the nutritional status of patients admitted to the pediatric intensive care unit should be evaluated as early as possible and that the onset of nutrition should be within 24-48 hours [(2)]. In our study, there were 63.2% patients fed within the first 24 hours of admission to the pediatric intensive care unit and 28.6% patients fed between 24-48 hours, and the number of patients with an initial enteral feeding time of over 48 hours was 8.2%. The reason for not being fed within the first 48 hours was undergoing abdominal surgery. Since mortality was not observed in our patients included in the study, the correlation between mortality and enteral nutrition could not be evaluated. The studies on adult patients have shown that providing early enteral nutrition and required calories reduces complications, decreases the length of hospital and intensive care stay, and affects mortality and morbidity [(4)]. Among our patients, the length of hospital stay of those who started feeding within the first 24 hours was also shorter.While nutrition within the first 24 hours did not affect the length of stay in the pediatric intensive care unit in our study, it affected the length of hospital stay. In a study retrospectively evaluating 416 children with traumatic brain injury, it was found that 48% of the cases started to be fed enterally within 48 hours and 65% within 72 hours, and that enteral nutrition positively affected mortality, hospital complications, length of hospital and intensive care stay, duration of mechanical ventilation [(5)].
Conclusion: It is of importance to provide nutritional support in critically ill children followed up in the intensive care unit due to trauma, as in other patient groups. If there is no contraindication in terms of nutrition, patients should be fed as early as possible, the enteral route should be preferred, and the sufficiency of the calories given should be frequently evaluated.

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EVALUATİON TRANSFUSIONS AND TRANSFUSION ASSOCIATED COSTS IN THE PEDIATRIC INTENSIVE CARE UNIT

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Introduction: The transfusion blood components, one of the most prevalent interventions in clinical practice is a major expenditure item in healthcare services which tend to increase in recent years. It is intended to investigate the impact of transfusion associated costs to hospital costs in Pediatric Intensive Care Unit (PICU) patients (1,2).

Methods: During a year period (January 2017-December 2017) 76 patients, 40 females and 36 males receiving transfusion with blood components along the stay in PICU were included in the study. Transfusion associated costs (TAC) and total costs for healthcare services for children treated in PICU was collected by using Hospital Information System (HIS). Statistical analysis of data was performed by SPSS software (version 22.0, SPSS Inc.,Chicago, IL, USA).

Results: The median age of patients was 12.0 months (interquantile range-IQR 26). The median length of stay was 16 days (IQR 30). In total 400 blood components were transfused in which of 217 red blood cell concentrates (RBC), 112 apheresis platelet concentrates (APC), 6 granulocyte concentrates (GC), 51 fresh frozen plasmas (FFP), and 1 cryoprecipitate and 1 whole blood. Among these products, 69% of RBCs, 53% of APCs and 62% of FFPs were pediatric components. The ratios of TAC to total healthcare costs were categorized in intervals of percentages as <5%, 5-10%, 11-15% and > 15%. Most of the patients (63.2%) were ranked in the lowest interval. Hemoglobin and hematocrit values of patients who transfused RBCs mean(±SD) was; 6.90 (±0.80) and 21.31 (±2.79), platelet values of patients who transfused APCs mean(±SD) was; 19406 (±8601) fibrinogen values of patients who transfused FFPs mean(±SD) was; 160 (±61). Neutrophil counts of all patients given granulocytes were under 500. Total of TAC and hospital cost were 26,106.51 euros and 804,802.38 euros. A significant strong positive corelation between numbers of transfusions and hospitalization cost of PICU was detected (r:0.674, p<0.01). While it was found a significant weak positive correlation between transfusion cost and hospital cost (r:0.247, P=0.032) there was also a significant weak positive correlation between the age and transfusion associated cost (p=0.048, r:0.227). A significant difference was found between the patients with and without hematological malignancies (p<0.01) for transfusion associated cost.

Conclusions: Laboratory data before transfusion were consistent with transfusion threshold values in current guidelines. It was the most commonly used erythrocyte suspension in the blood components. In the study of Leahy et al., it has been reported that the most frequently used product is erythrocyte suspension and the effectiveness of patient blood management (PBM) has an important place in reducing TACs. Studies on the economics of blood transfusion have been conducted mostly in patients who require chronic or multipl transfusions. PICUs, specialized facilities that provide care for patients with severe life-threatening diseases are major departments often necessitate multipl transfusions. There are many variables to evaluate the impact of transfusion associated cost to hospital cost in PICU patients, but the major factors are underlying conditions, admitting diagnoses and transfusion strategies. Further studies on the economics of blood transfusions have to be carried out to clarify the variables of transfusion associated costs.

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HOW SIGNIFICANT IS THE BIG SCORE IN CHILDHOOD HEAD TRAUMA?

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Objectives: Traumatic brain injury (TBI) is the leading cause of death and disability from trauma in children [1, 2]. Scoring systems are widely used as an indicator of prognosis and predictor of mortality in Emergency departmentand Pediatric Intensive Care Unit (PICU). Development of simple and accurate prognostic models that can be obtained very early in the clinical course are needed for interpreting heterogeneity of the TBI population, understanding the impact of intercenter variations in clinical care, and identifying the best candidates for novel interventions [3,4]. In recent years, BIG score [base deficit + 2.5xINR + (15-GKS)], which is a new score, has been evaluated successfully in predicting mortality in penetrating and non-penetrating childhood traumas. The BIG score has been recently developed among 707 children admitted to combat-support hospitals in Iraq and Afghanistan and validated among 1,101 children admitted to a German hospital. Following these, the BIG score was validated retrospectively using the trauma database of a single tertiary care pediatric hospital [5]. The aim of this study was to evaluate the reliability of BIG score in predicting mortality in children with head trauma.

Method: This was a retrospective study performed between January 1, 2014-December 1, 2019, in a single tertiary care hospital of Akdeniz University Faculty of Medicine. 1 month-18 years old children who were admitted to the emergency department due to head trauma and required PICU were included in the study. Patient information was accessed from the hospital data recording system. Demographic and clinical information of patients included age, sex, mechanism of injury, associated organ injury, intubation, blood transfusion, need for surgery, length of hospital stay, length of pediatric intensive care stay, length of mechanic ventilation, Injury Severity Score (ISS), death, the initial components of the BIG score (base deficit (BD), INR, and pre-intubation GCS). The BIG score was calculated as (BD)+(2.5×INR)+(15- GCS). Analyses were performed with SPSS v21 software (SPSS Inc., Chicago,Illinois)

Results: One hundred fifty nine patient met the inclusion criteria who suffered from a traumatic brain injury between January 2014 and December 2019 and were admitted to the PICU. 65(40,9%) patients were female and 94(59,1%) were male. 20 (12,7%) patients died during follow up. As described in Table 1, the most frequent mechanisms of injury was falling down (%37), followed by pedestrian traffic accidents (25,2%). Mortality rate was 20 (12,7%). Of the 20 non-survivors, 9 (45%) had a falling down injury, 7 (35%) were involved in a pedestrian traffic accident, 3 (15%) injured by in-car traffic accident, and 1(%5) patient died because of motorcycle accident. All mortal cases had severe brain injury (GCS<9) and 13(65%) had multiple site affected intracranial hemorrhage. BIG score was higher in mortal group [mean(SD): 31,5(12,2)] than surviving patients [mean(SD):14,9 (5,7)], (p<0,001). Injury severity score results were higher between two groups; surviving patients had mean(SD) 14,6 (8,9) and non-survivors had mean(SD) 32,3(7,6) values (p<0,001).

In the ROC evaluation for BIG score, AUC was determined as 0.962 (CI 0.920-0.986), AUC for ISS 0.951 (CI 0.990-0.979), AUC for PRISM III (CI 0.913-0.963) for GKS (CI 0.913-0.963) (Table 2) (Figure 1). GKS was found to be the most predictor parameter for demonstrating mortality among the parameters forming the BIG score.

Discussion: Numerous pediatric trauma mortality assessment tools have been developed, including the ISS, Trauma and Injury Severity score, Pediatric Trauma score, and Pediatric Risk Index, and A Severity Characterization of Trauma [6-8]. Their limitations include the necessity to identify injuries in all body regions, which is time-consuming and often requires imaging technology. Furthermore, any score that incorporates the ISS is relatively complex and its calculation requires trained personnel. In contrast, the BIG score encompasses the critical physiological variables that play a pivotal role in trauma mortality and consists of routine and readily available trauma-related investigations [1]. Coagulopathy is a common independent predictor of trauma mortality, particularly in children with head injuries [9]. The exact mechanisms of trauma-induced coagulopathy have not been fully elucidated in children. Although hypothermia, acidosis, and hemodilution secondary to administration of crystalloids and consumption of coagulation factors likely represent contributing factors in both children and adults [9]. But early identification and correction of coagulopathy may indeed decrease mortality in traumatized children [10]. The other components of the BIG score, namely the GCS and the BD, are also associated with severity of injury. The GCS is used as a surrogate marker of the degree of brain injury or cerebral hypoperfusion, and the BD is linked to the severity of shock and fluid requirement. Both variables also independently predict risk of death in traumatized children [1,2].

The BIG score can be performed rapidly, thereby allowing physicians to recognize the degree of physiological derangement and communicate meaningful severity of injury. As conclusion our study suggests that BIG score is a is a simple, rapidly calculated, good predictor of mortality and determining the severity of disease in children with traumatic brain injury.

Table 1. Demographics .

	Survivors (n=139)	Exitus (n=20)	p
Age (year)	8,66 (5,26)	8,15 (4,81)	0,604
Sex (n%)			0,567
Male	81 (41,7)	13 (65)	
Female	58 (58,3)	7 (35)	
Glasgow Coma Scale	8,47 (3,56)	3,35(0,93)	<0,001
INR	1,31 (0,33)	3,25 (3,11)	<0,001
BD	-5,22 (3,59)	-11,72 (6,22)	0,001
BIG	14,99 (5,76)	31,51 (12,23)	<0,001
ISS	14,64 (8,91)	32,35 (7,64)	<0,001
PRISM III	8,03(6,93)	30,00 (6,93)	<0,001
PICU Day	8,52 (6,53)	3,20 (2,12)	0,006
Hospitalization Day	21,57 (16,88)	3,20 (2,12)	<0,001
Mechanical Ventilation Day	5,57 (4,92)	3,15 (2,16	0,026
Trauma Mechanism (n%)			0,554
Falling down	54 (38,8)	9 (45)	
Traffic accident (pedestrian)	35 (25,2)	7 (35)	
Traffic accident (in-car)	24 (17,3)	3 (15)	
Motorcycle accident	15(10,8)	1 (5)	
Other	11 (7,9)	0	
Head Trauma Group (n%)			<0,001
Mild (GKS 12-15)	52 (37,4)	0	
Moderate (GKS 9-11)	32 (23,0)	0	
Severe (GKS< 9)	55 (39,6)	20 (100)	
Cranial Pathology (n%)			0,005
Subarachnoid hemorrhage	31 (22,3)	5 (25)	
Epidural hemorrhage	20 (14,4)	0	
Subdural hemorrhage	28 (20,1)	1 (5)	
Intraventricular hemorrhage	4 (2,9)	0	
Parenchymal hemorrhage	22 (15,8)	1 (5)	
Multiple site intracranial hemorrhage	34 (24,5)	13 (65)	
Other Injuries (n%)			
Thoracic injury	63 (45,3)	14 (73,7)	0,200
Abdominal injury	38 (27,3)	10 (50)	0,002
Orthopedic injury	60 (43,2)	11 (55)	0,100
Spinal injury	31 (22,3)	6 (30)	0,871
Brain Edema (**n%)**	72 (51,8)	20 (100)	<0,001
Mannitol (n%)	71 (51,1)	11 (55)	0,743
%3 NaCl (n%)	85 (61,2)	13 (65)	0,741
Intubation (n%)	92 (66,2)	20 (100)	0,002
Hypotension at Emergency Service (n%)	24 (17,4)	17 (85)	<0,001
Transfusion in Emergency Service (n%)	26 (18,8)	15 (75)	<0,001
Operation before PICU admission (n%)	36 (26,1)	5 (25)	<0,917

INF A/B: Influenza virüs type A ve B; RSV: Respiratory syncytial virüs; RV: Rhinovirüs; BoV: Bocavirüs; PIV: Parainfluenza virüs; ADV: Adenovirüs; CoV: Coronavirüs; EV: Enterovirüs; MPV: Metapnomovirüs

Table 2. ROC Analysis of Scoring Systems.

	AUC	CI
BIG score	0,962	0,920-0,986
ISS	0,952	0,906-0,979
GKS	0,957	0,913-0,983
PRISM III	0,981	0,946-0,996

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SS127

COMPARİSON OF CENTRAL VENOUS CATHETERS INSERTED İN PICU BY THE PEDİATRİC INTENSIVE CARE TEAM WITH THOSE INSERTED IN NON-PICU WARDS

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Introduction: Central venous catheters (CVCs) increase the risk of central line-associated bloodstream infections (CLABSIs), although it provides convenience in the treatment of intensive care patients [(1)]. We aimed to determine a 1-year prospective, examination of the CVCs inserted in the pediatric intensive care unit (PICU) and non-PICU wards, and to define the indications, the risk of central line-associated bloodstream infections (CLABSI) and rate of CVC placement.

Method: Our study, which organized as a prospective, cohort study, included patients who hospitalized in PICU and non-PICU wards between 01.01.2019 and 31.12.2019, and who had CVC inserted by the PICU team. The patients' demographic features, indications for CVC and in which wards they were followed up were recorded prospectively. Statistical analyses were performed using SPSS version 20.0 software (IBM, Armonk, NY, USA). Demographic features, CVC types, and indications were evaluated with descriptive statistics. Besides, the relationship of CVCs inserted in PICU, and non-PICU wards with CLABSI were analyzed by binary logistic regression analysis.

Results: The total number of CVC implanted in 1 year included was 118. It was observed that 98 (83%) of the patients were in the PICU, and 20 (17%) of the patients were in the non-PICU wards. It was observed that 58 (59%) of CVC in the PICU were inserted because no vascular access was found, 23 (23.5%) required inotropic treatment, and 17 (17.5%) were due to start extracorporeal treatment. For the catheters outside the PICU; 13 (65%) of the patients had no vascular access, 3 (15%) of them required inotropic treatment and 4 (20%) of them required extracorporeal treatment (Table 1). When we compared catheters inserted in PICU with non-PICU wards using binary logistic regression analysis, we found that CVCs inserted to external wards increased the risk of CLABSI, although not too much (OR: 1.4, p: 0.041, 95% CI: 1.19-2.35).

Conclusion: When we review the literature, we notice that; it has been shown that the risk of CLABSI increases in catheters installed outside the PICU. Most of these studies are included in adults (2). When the catheters inserted in our hospital and their indications are examined; it was detected that a significant part of the total CVCs was installed in non-PICU wards, especially in the hematology-oncology ward. It was observed that the CVCs inserted outside the PICU are associated with an increased risk of CLABSI. We think that training the non-PICU staff on CVC care can reduce the risk of CLABSI.

Table 1. Comparison of CVCs of PICU and non-PICU wards.

	No vascular access was found N-(%)	Need for inotropic treatment N-(%)	Extracorporeal treatment N-(%)
PICU	58-(59)	23-(23,5)	17-(17,5)
Non-PICU wards	13-(65)	3-(15)	4-(20)

CVC: Central venous catheter, N: Number, PICU: Pediatric intensive care unit

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SS128

COMPARISON OF VİTAMİN B12, HOLOTRANSCOBALAMIN AND HOMOCYSTEINE LEVELS IN MATERNAL AND CORD BLOOD

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Introduction: Vitamin B12 plays a key role in the synthesis of DNA, which is necessary for cell division and reproduction. It is mainly found in animal origin food and is not synthesized in the body [(1)]. The lack of B12 may lead to megaloblastic anemia, psychiatric and hematological disorders, and physical and neuromotor developmental delay. Especially because of its role in myelinization; the development of the brain and nervous system is significantly affected by vitamin B12 deficiency [(2)]. In this study, we planned to measure the levels of vitamin B12 and the carrier form holotanscobalamin for women in the third trimester of pregnancy, while at the same time identifying the levels of vitamin B12 and holotc in cord blood in order to be able to evaluate the relationship between the mother and baby and search how the values of the mother is transferred to the baby. We have also sought to find out whether homocysteine could be utilized to show the vitamin B12 level by measuring the level of homocysteine in the cord blood.

Method: The study included 50 healthy pregnant women who were followed by and gave birth at the Gynecology and Obstetrics Clinic of Ufuk University between January and June 2014. The pregnant women who had a uterus anomaly and complications such as premature rupture of membranes, urinary system infection, diabetes mellitus and hypertension, and the babies who had intrauterine growth retardation or low birth weight (SGA) according to the gestational week were excluded from the study. This study was approved by the Non-interventional Clinical Research Ethics Board of our institution (280520148). All the pregnant women were informed about the study and they signed the informed consent form.

Statistical Analysis

The SPSS for Windows program (IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) was used for statistical analysis of the patients' data.

Results: The average age of the 50 pregnant women included in the study was 29,4+3,6 age and the gestation week of the newborns was 38,2+0,9 week. Vitamin B12 level of women at the beginning of pregnancy changed between 82 and 541 pg/ml (238,81+109 at average).

Vitamin B12 level in the cord blood ranged between 82 and 859 pg/ml (Mean: 237,2+204,7 pg/ml). Vitamin B12 level was detected to be under 190 pg/ml for 20 of them (40%). There was a positive correlation between vitamin B12 level and cord blood vitamin B12 level and between holotc level and cord blood holotc level of pregnant women ($p<0,05$). There is also a positive correlation between holotc level and cord blood vitamin B12 level measured before delivery ($p<0,05$). A positive correlation was also detected between cord blood vitamin B12 levels and cord blood holotc levels ($p<0,05$).

Discussion: Vitamin B12 deficiency occurs due to the increase in need of the vitamin during pregnancy. In our study, vitamin B12 deficiency in the cord blood was observed to be 40%. Likewise, 95% of the mothers of these babies had vitamin B12 deficiency in the last trimester. Inconsistent with the literature, vitamin B12 values measured in the cord blood were higher than the mother's vitamin B12 levels [(3)]. We have detected in our study that the homocysteine levels, used to show the state of vitamin B12 for adults, did not present any correlation with levels of holotc and vitamin B12 in cord blood. In coclusion we observe the need for more studies that would determine supportive tests to be used for revealing the state of vitamin B12, especially during the pregnancy and newborn period.

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SS129

DETERMINATION OF B12 VITAMIN LEVEL THAT METABOLIC CHANGES OCCURED

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Introduction: Vitamin B12 is an essential vitamin that can be synthesized by microorganisms. Vitamin B12 plays a critical role in the synthesis of deoxyribonucleic acid (DNA) and ribonucleic acid (RNA) and B12 deficiency may impair DNA synthesis. B12 deficiency may cause megaloblastic anemia, growth and developmental delay and serious neurological disorders in children. For years, cobalamin measurement has been shown as the most important parameter in the evaluation of patients suspected of vitamin B12 deficiency. However, because of it shows the only total vitamin B12 value, does not accurately reflect the vitamin B12 status used intracellularly. Functional markers should be measured to show real vitamin B12 deficiency. In our study, we aimed to find a new cut-off value of vitamin B12 deficiency at the cellular level by measuring the related metabolites of vitamin B12 (homocysteine (Hcy) and urine methylmalonic acid (MMA) in our own population (1 month-18 years).

Methods: 215 cases aged between 1 month -18 years were included in our study. All cases who applied to Behçet Uz Children's Diseases and Surgery Training and Research Hospital Hematology outpatient clinic with vitamin B12 deficiency and metabolic outpatient clinic with vitamin B12 deficiency and simultaneously taken complete blood count, vitamin B12 level, folic acid, homocysteine and urine MMA were included. Definitive indicator of vitamin B12 deficiency; blood homocysteine and urine MMA levels were assumed to be elevated and ROC analysis was performed to calculate the cut-off value for vitamin B12 level. SPSS 22.0 program was used for calculations.

Results: The mean age of the 215 patients included in the study was 3.5±5.8, 127 (59.1%) were male and 88 (40.9%) were female. Vitamin B12 levels were <200 pg/ml in 88 (40.9%), 200-300 pg/ml in 38 (17.7%) and> 300 pg/ml in 89 (41.3%) patients. There was a significant negative correlation between vitamin B12 and homocysteine and urinary MMA (r=-0.534, r=-0.169, respectively). The correlation between B12 vitamin and homocysteine and urinary MMA was statistically significant (p=<0.001, p=0.013, respectively). In the ROC analysis of homocysteine 15 µmol/L cut-off value, cut-off value was found to be 185.5 pg/ml with 81.5% sensitivity and 74.5% specificity for vitamin B12 (p=<0.001) (AUC=0.820). According to the distribution of urinary MMA in the cases, the lowest statistically significant value was found to be 0.5 mmol/molcreatin). In the ROC analysis of urine MMA 0.5 mmol/molcreatin cut-off value, cut-off value was found to be 234.5 pg/ml with 50.5% sensitivity and 74.2% specificity for vitamin B12 (p=0.010) (AUC=0.645).

Conclusion: Our study is a new study for vitamin B12 cut-off value in infancy, childhood and adolescence. Because of with high growth rates vitamin B12 deficiency is more common in the first 2 years of age and adolescence period (12-18 years) a compared to other childhood age groups. Vitamin B12 was negatively correlated with Hcy (especially) and urine MMA, and there was a statistically significant correlation between them. The new cut-off value for vitamin B12 was accepted to be 185.5 pg/ml due to the stronger correlation between Hcy and vitamin B12 compared to urine MMA and higher sensitivity and specificity in the ROC analysis of Hcy 15 µmol/L. A metabolic deficiency may occur before symptoms appear, and it will be clinically useful to use this new cut-off value according to Hcy.

Keywords: Vitamin B12 deficiency, serum vitamin B12, urine methylmalonic acid (MMA), homocysteine (Hcy)

SS130

COMPARISON OF THE EFFICACY AND SİDE EFFECTS OF DEFERASİROX AND DEFEROXAMINE AS AN IRON CHELATOR IN THALASSEMIA MAJOR

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Aim: Increased intestinal iron absorption together with regular blood transfusions are major causes of iron accumulation (secondary hemacromatosis) which is the most important cause of mortality and morbidity in patients with thalassemia major (TM). In patients compliant to treatment and taking regular iron chelation with blood transfusions complications are expected to be seen more rarely. In this study, we compared the efficacy and side effects of defarasirox (DFX) and deferoxamine (DFO) in the treatment of iron overload in patients with TM.

Method: The study included TM patients who received regular blood transfusions over 2 years old and followed up at our center between 2008 and 2011. DFX was initiated in 36 (F/M: 20/16) transfusion-dependent patients with at least 15 times blood transfusion history, ferritin value over 1000 ng /ml, and without any prior chelation therapy. The data were evaluated prospectively. On the other hand the data of 37 (F/M:20/17) patients who received DFO as the firstline chelation therapy were evaluated retrospectively. The demographic features of the patients, complete blood count, blood urea nitrogen, serum creatinine, AST, ALT, ferritin, 24-hour urine protein, audiological and echocardiographic examinations were evaluated prior to initiation of therapy and at regular intervals. The efficacy and side effects observed during the treatment were questioned in both groups.

Results: The mean age of patients in DFX and DFO groups were 71.9±39.2 and 68.5±13.5, respectively. Although there were no between-group differences in the levels of serum ferritin observed at 3-month intervals; ferritin levels strikingly decreased after 6 months in the DFX group. (Table 1). The most common side effects were diarrhea (n: 2), vomiting (n: 2), abdominal pain (n: 3), neutropenia (n: 2) and rash (n: 1) in the DFX group. Transient increase in serum ALT was observed in 2 patients. Sensorineural and conductive type hearing loss (n: 5), tinnitus (n: 1), myalgia (n: 1) and periumbilical fibrotic reaction (n:1) were the most common side effects in the DFO group. There was no difference in baseline and follow-up echocardiographic examination. All patients were in compliance with the treatment in the DFX group but 6 patients (16.2%) were non-compliant in the DFO group. In 11 patients of the DFO group treatment was discontinued due to non-compliance and hearing loss whereas none of the patients terminated treatment in the DFX group.

Discussion: Although DFO has been widely used since 1963, it might be insufficient especially for prevention of cardiac iron accumulation and drug compliance problems are observed due to difficulties in application procedure. The ideal iron chelator should have high affinity and specificity to Fe+3 with high chelation activity and good penetration capability into the tissue and cell. Also it should be non-toxic with acceptable adverse effects profile and high tolerability. A systematic meta-analysis showed that DFX at a döşe of 30 mg/kg/day had similar effect with DFO on serum and tissue iron levels [(1)].

Conclusion: Similar to the previous studies we claim that DFX might be a feasible alternative to DFO in the pediatric age group as there was no significant difference between serum ferritin levels of two groups without severe side effects and high drug compliance due to the ease of use.

Keywords: Thalassemia major, defarasirox, deferoxamine

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SS131

CLINICAL MANIFESTATIONS AND MANAGEMENT OF MEDIASTINAL TUMORS IN CHILDREN, A SİNGLE CENTER EXPERIENCE

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Introduction: Mediastinum is the central part of the thoracic cavity and divided into three compartments, namely, the anterior, middle, and posterior mediastinum. Many vital organs such as heart, major vessels, trachea, eosphagus, nerves, lymph nodes are located in the mediastinum [(1)]. Mediastinal tumors (MT) are rare in children and may originate from any mediastinal organ [(1-6)]. They may cause life-threatening symptoms and require immediate interventions. In this study, we evaluated the clinical features of MTs detected in children. Our aim is to emphasize the importance of early diagnosis-intervention and enhance the knowledge of MT.

Methods: This study was carried out in the pediatric hematology- oncology department of Dr. Behçet Uz Children's Hospital. We recruited the files of the 50 patients followed between 2012-2019 and analyzed them retrospectively.

Results: Fifty patients (M/F:3/2) with MT were enrolled in the study. The median age at diagnosis was 11,8 years (range: 0-17), the median follow-up time was 2 years (0-10). Malignant tumors were detected in 43 (86%) and benign tumors in 7 (14%) patients. Fifty percent of MT were located in anterior mediastinum, 32 % of them in posterior mediastinum and 18% of them in middle mediastinum. Lymphomas were the most common tumor type (60%), followed by neurogenic tumors (26%) (Table 1). The most common presenting symptom was respiratory system symptoms, followed by neck mass, B symptoms and neurological symptoms (Table 2). Five patients (10%) presented with vena cava superior (VCS) syndrome, 3 ones (6%) with medulla spinalis compression findings. Steroid therapy and laminectomy were applied in these patients before the establishment of the diagnosis. Chest radiography (CR) of the patients revealed enlarged mediastinal lymph nodes in 31/50 (62%) and localized mass image in 19/50 (38%). Pleural effusion was detected in eight patients (16%) and pericardial effusion in 7 (14%) patients. Thoracic computed tomography (CT) was used in all patients to evaluate the mediastinal masses. Eight of the patients had the findings of tracheal compression and 10 of them had large vessel compression. The definitive diagnosis was established by cervical lymph node excision in 23 of them, open biopsy in 9, total mass excision in 7, tru-cut biopsy in 6, thoracentesis in 3, bone marrow examination in 1 and mediastinoscopic biopsy in 1 patient. Four patients experienced complication during these diagnostic methods; pneumothorax (2), hemothorax (1) and horner syndrome (1) respectively. During the follow-up, 2 patients died due to septic shock and 1 due to disease progression.

Discussion: MTs in children are rarely encountered. The age of onset and sex distribution differ among conducted studies [(3,4,6)]. The tumors were mostly malignant in nature, as in other studies [(3,4,6)]. Lymphoma is the most common pediatric anterior mediastinal mass [(1-4)]. In our series, anterior mediastinum was the most common localization of the tumors and lymphomas accounted for all of the anterior MTs. Thirty two percent of MTs were located in posterior mediastinum in our study, as compatible with the literature [(1,2)]. Neurogenic tumors encompassed 80% of these tumors located in the posterior mediastinum. Almost all these neurogenic tumors arise in the paravertebral sympathetic chain ganglion [(2)]. The clinical symptoms vary depending on the size, location of the tumor and involvement of the adjacent organs [(3,4)]. In our study, respiratory symptoms were the most common symptom. Trachea and major vessel compression are more likely to occur in children due to the smaller size of thoracic cavity [(4-6)]. Neck mass was the second frequent symptom and facilitated to establish definitive diagnosis by performing excisional biopsy. If there is an image of a mediastinal mass in CR, CT is the standard imaging study [(1,2)]. In all of our patients, the mediastinal masses were first detected by CR. Afterwards, thoracic CT was used to clarify accurate mediastinal compartment, detailed mass description, adjacent organ involvement and differential diagnosis. Urgent intervention was applied in patients with spinale cord compression and VCS syndrome. The accurate diagnosis of all the patients was established by histopathological evaluation.

Conclusion: MTs are mostly malignant in nature. Spinale cord compression and VCS syndrome are life-threatening findings and require urgent treatment. Despite CR is a simple and effective for detecting MTs, further imaging tools are necessary to clarify the features of the masses. MTs should be kept in mind in patients with recurrent, chronic respiratory complaints, neck mass and neurological findings.

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Table 1. The frequency of mediastinal tumors.

		Mediastinal localization		
Histopathology	**Total N (%)**	**Anterior N (%)**	**Middle N (%)**	**Posterior N (%)**
Lymphoma	30 (60)	21 (42)	8 (16)	1 (2)
Hodgkin Lymphoma	21 (42)	13 (26)	8 (16)	-
Non-hodgkin Lymphoma	9 (18)	8 (16)	-	1 (2)
Neurogenic tumors	13 (26)	-	-	13 (26)
Neuroblastoma	4 (8)	-	-	4 (8)
Ganglioneuroblastoma	3 (6)	-	-	3 (6)
Ganglioneuroma	6 (12)	-	-	6 (12)
Others	7 (14)	4 (8)	1 (2)	2 (4)
Desmoid fibromatosis	1 (2)	-	1 (2)	-
PNET	2 (4)	-	-	2 (4)
LCH	1 (2)	1 (2)	-	-
Timoma	1 (2)	1 (2)	-	-
Inflammatory fibroblastic tumor	1 (2)	1 (2)	-	-
Hamartoma	1 (2)	1 (2)	-	-

PNET; Primitive neuroectodermal tumour, LCH; Langerhans cell histiocytosis

Table 2. Presenting symptoms of patients.

	N (%)
Neck mass	14 (28)
Respiratory system	21 (42)
• Cough	9 (18)
• Breating difficulty	7 (14)
• Cough/ Breating difficulty	4 (8)
• Tachypnea	1 (2)
B symptoms	6 (12)
Neurological system	5 (10)
• Back pain	1 (2)
• Weakness in the extremities	4 (8)
Chest deformity	1 (2)
Asymptomatic	3 (6)

SS132

EPIDEMIOLOGY AND SURVIVAL OF OUR BURKITT'S LYMPHOMA PATIENTS

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Objective: Burkitt's lymphoma accounts for 40% of non-Hodgkin's lymphomas in childhood. Although the prognosis is very poor, treatment rates have increased with intensive chemotherapy protocols used in re-cent years. The aim of this study was to evaluate the epidemiological characteristics and survival rates of Burkitt's lymphoma (BL) cases in our center.

Methods: The data of 84 patients with Burkitt's lymphoma between the ages of 0-19 between 1992 and 2017 in our center were analyzed retrospectively using the records of Ege University Cancer Control and Research Center. Age, sex, and age distribution and overall survival (OS) rates were evaluated.

Results: Of the 84 patients with BL, 57 were male (67.9%) and 27 were female (32.1%). The median age at diagnosis was 8 years (1 month-18 years). There were 34 patients (40.5%) diagnosed between the ages of 5-9 and 20 patients (23.8%) diagnosed between the ages of 10-14. The diagnosis was abdominal involve-ment in 52.3% of the patients (n=44) and in the head and neck region (n=24) in 28.5%. 50% of the pa-tients were diagnosed in the early stage (stage I (n=31), stage II (n=11)), and 50% in advanced stage (stage III (n=24), stage IV (n=18)) He had received. The median follow-up period of our patients was 52.1 months (0-298 months). The 5-year OS rate was 78.8% and 10 years was 78.8%. While the 5-year OS rate was 89% in the early stage (stage I-II), the 5-year OS rate was 69.4% in the advanced stage (Stage III-IV) (p=0.027). The 5-year OS rate was 85.9% for boys and 64.2% for girls (p=0.018). According to the age of diagnosis; The 5-year OS rate was 93.7% in the diagnosis group aged 5-9 years; 73.3% in the 10-14 age group; The 5-year OS rate was 47% in the group diag-nosed as ≥15 years. When we evaluate the OS rates according to the years they were diagnosed, it was seen that the 5-year OS rate in patients treated between 1992 and 1999 increased from 75.5% to 80.8% in those diagnosed after 2010.

Conclusion: When our results were evaluated, it was seen that OS rates were similar to developed countries. OS rates were found to be significantly lower in advanced stage patients and patients diagnosed as ≥15 years, consistent with the litera-ture. In contrast to the literature, it was seen that the OS rate was signifi-cantly lower in girls in our patient group.

SS133

ASSESMENT OF IMMUNITY TO HEPATITIS B IN PEDIATRIC PATIENTS WITH LYMPHOMA AND OTHER SOLID TUMORS RECEIVING CHEMOTERAPY

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Hepatitis B is a disease that is preventable with vaccination. Children with cancer are especially at high risk for developing hepatitis B virüs (HBV) infection due to immunsuppression secondary to chemotherapy, radiotherapy and multiple blood transfusions. Antibody titers after vaccination may be affected by supression of the immune system due to cancer therapy.

Assessment of antibody titers and immunity to hepatitis B in pediatric patients receiving chemoterapy were aimed in our study. For this purpose we reviewed the medical records of 111 patients who treated for lymphoma and the other solid tumors from 2006 to 2014 in pediatric hematology and oncology department. The seropositivity of HBsAg was % 0 and anti-HBs was % 57.6 at diagnosis. Anti-HBs titer results of 16 (%25) patients decreased below the protection level during and after the end of treatment. This 16 patients were found to be younger than the others. Patients with lymphoma lost their immunity in a shorter time than patients with solid tumors. The seronegative patients were administered twice dose of recombinant hepatitits B vaccine at 0, 1 and 6. months. About % 88.23 of patients developed vaccine response. Seroconversion rates of patients with lymphoma significantly higher than patients with other solid tumor. One of the patient who received no primary vaccination prior to the diagnosis, developed chronic hepatitis.

In conclusion, in pediatric oncology patient the protective antibody levels againts hepatitis B must be followed carefully and the patients must be included in the vaccination program again, if necessary.

Keywords: Childhood cancer, Hepatitis B, Hepatitis B vaccine

SS134

ASSESSMENT OF CEREBRAL BLOOD FLOW WITH TRANSCRANIAL DOPPLER ULTRASONOGRAPHY IN CHILDREN WITH SICKLE CELL DISEASE

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Introduction: Stroke is one of major complications of the sickle cell disease (SCD). Transcranial Doppler ultrasonography (TCD) is a cheap method that can be performed easily and repeatedly or allows continuous monitoring bedside method for cerebral blood flow. We aimed the assessment of cerebral blood flow with transcranial doppler ultrasonography (TCD) in children with sickle cell disease.

Method: Fifty-three SCD pediatric patients (39 HbSS, 14 HbSβ0 Thal) and 26 healthy individuals were analyzed. The mean patient age was 12.9±3.9 years, with 49.1% female and 50.9% male children. TCD scanning was carried out using a phased array transducer of 1-3 MHz through the trans-temporal window. The peak systolic maximum velocity (Vmax), end-diastolic minimum velocity (Vmin) and time-averaged mean flow velocity (Vmean), resistive index (RI) in the middle cerebral artery (MCA), internal carotid artery (ICA), and vertebral artery (VA), and vertebral artery diameter were established. We evaluated that Vmax related to laboratory parameters and clinical findings.

Results: The mean±SD values for the MCA Vmax of patients with HbSS, HbSβ0 and control were 161.23±35.45, 185.85±62.9 and 103.80±28.81 msn, respectively. Right (R) and left (L) MCA Vmax, Vmean, RI, R and L ICA Vmean, R and L VA Vmean and VA diameter in the patient group were higher than the control group, Although it was statistically not significant, Vmax values were elevated in groups with HbSB, using hydroxyurea, receiving transfusion, using chelation, and <3p below weight and height percentile, having Hb <8 g /dl, ferritin> 1000 ng/dl, above MPV> 12, and above RDW> 18. Vmax value was found to be statistically significantly high in patients with OHA who had only headache.

Conclusions: Our study showed that SCD patients in Hatay were presented with abnormal cerebral blood flow patterns. It was shown that laboratory parameters and clinical findings were positive or negative effects on TCD vascular parameters.

Keywords: Sickle cell anemia, Transcranial Doppler ultrasonography, Middle cerebral artery blood flow

SS135

DIAGNOSTIC FEATURES OF CHILDHOOD ACUTE LEUKEMIAS: SINGLE CENTER EXPERIENCE

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Objective: Acute leukemias occur as a result of malignant transformation of immature hematopoietic elements in the bone marrow. 30% of childhood cancers are leukemias and 80% of leukemias are acute leukemias. Leukemia is manifested by nonspecific symptoms such as fever, weakness, paleness, bleeding, bone and joint pain. It is diagnosed by physical examination, peripheral blood and bone marrow examination. In this study, we aimed to investigate the signs and symptoms of acute leukemia patients diagnosed in our clinic at the time of admission.

Method: Symptoms at diagnosis, physical examination and laboratory findings of 129 patients diagnosed as acute leukemia at the Tepecik Training and Research Hospital Pediatric Hematology-Oncology clinic between 2009-2019 were analyzed retrospectively.

Results: One hundred and nine of 129 patients were acute lypmphoblastic leukemia (ALL, 85%), 20 were acute myeloid leukemia (AML, 15%). M/F 1.2, median age 4.6 yrs (0.25-17.5 yrs). The most common initial complaint was fever (47%), followed by weakness (45%), bone pain (40%), bleeding (35%). In physical examination: paleness (51%), hepatosplenomegaly (43%), lymphadenopathy (40%), petechiae and ecchymosis (30%), bone tenderness (23%).

27/129 (21%) of patients were pancytopenic at diagnosis, 50 patients (39%) were applied with leukocytosis, anemia and thrombocytopenia were present in 50 (90%) of patients. Eleven patients (8.5%) developed tumor lysis table accompanied by high levels of LDH and uric acid and ion imbalance. 85% of patients were ALL, and 52% of them in intermediate risk group, 8% of them were pre-B cell immunophenotype.

Discussion: Toxicities are reduced with risk group-modified chemotherapy regimens today, and survival rates are increased by enhanced combination treatment protocols. When we look at the data analysis of our study, the disease manifests itself with nonspecific symptoms such as fever, weakness, bone pain, bleeding. In physical examination revealed pallor, organomegaly, lymphadenopathy, bleeding finding. At laboratory findings, we see anemia and thrombocytopenia most frequently, and leukocytosis, LDH and uric acid levels are also noteworthy.

Conclusion: In patients presenting with similar complaints, clinicians should definitely conduct a detailed physical examination by taking a detailed history, and should refer patients to pediatric hemato-oncologists when they are suspicious of possible leukemia even if there are no supportive laboratory findings.

Keywords: Acute leukemias, childhood, diagnostic features.

SS137

EVALUATION OF RISK FACTORS LEADING TO THROMBOSIS IN CHILDREN

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Introduction: Although thrombosis is rare in children compared to adults, it causes significant morbidity and mortality. The aim of our study is to evaluate risk factors of children diagnosed with thrombosis.

Methods: One hundred and three children aged between 0-16 years diagnosed with thrombosis in our pediatric hematology department were included in the study. Demographical data, location of the thrombus, congenital and acquired thrombophilic risk factors, treatments and outcome were recorded.

Results: Of the patients 57 (55.3%) were male and the mean age at the time of presentation was 48±4.42 months (0-192). Mean follow up period was 24 months (3 days-72 months). Ninety four (91.2%) patients had cerebral thrombosis, 9 (8.8%) had extracerebral thrombosis. Of the patients, 58.2% were admitted because of hemiparesis, 42.5% admitted because of seizures. Underlying disease was found in 34.9% of the patients. Thrombophilic risk factors were activated protein C resistance (APCR) (49.1%), methylen-tetrahydrofolat-reductase (MTHFR) mutation (48.8%), Factor V Leiden (FVL) mutation (21.3%), respectively. Underlying disease and Protein C deficiency were statistical significant in the patients with extracerebral thrombosis ($p<0.001$ and $p=0.032$, respectively). Thrombophilic mutations in patients in comparison to healthy controls showed that FVL mutation increase the risk of thrombosis 3.4 fold, Prothrombin G20210A mutation 4.7 fold and MTHFR homozygous mutation 2.7 fold, respectively. Aspirin treatment was used in 69.9% of the patients, folic acid in 20.3%, oral anticoagulant in 17.4%, low molecular weight heparin in 6.7% and streptokinase in 0.9%, respectively. The outcome of the patients were favourable except 5 patients. Ninety nine percent of the patients with extrecerebral thrombosis had at least 1 risk factor, whereas 87% of the patients with cerebral thrombosis had at least 1 risk factor.

Conclusion: Pediatric thrombosis is multifactorial and may lead to severe morbidity and mortality. Activated protein C resistance, MTHFR, Protrombin G20210 A and FVL mutations can induce pediatric thrombosis in the presence of underlying disease.

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SS138

USING ACUTE PHASE REACTANTS IN DIFFERENCE OF VIRAL-BACTERIAL INFECTION AT CHILDREN WHO ADMIT TO EUTF CHILDREN HOSPITAL WITH FEVER

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Fever is not a diagnosis but is symptom. It may be a simple finding of viral infection, a physiological finding resulting from circadian rhythm, or a finding of hidden bacteremia or serious bacterial infection (SBI) (1). In the studies conducted, no single marker could be detected in the viral/bacterial infection differentiation (2). With this study, it was aimed to examine the acute phase markers that can be used in febrile children.

Method: The study was carried out prospectively on 300 patients, aged between 1 month and 18 years, who applied to the Ege University Medical Faculty Pediatrics Department with fever between March 2015 and February 2016.

Results: The absence of prodromal period was significant in terms of bacterial infections ($p<0.05$). It was found significant that the probability of bacterial infection increases with increasing body temperature ($p<0.05$). The general appearance was not significant ($p>0.05$). It was determined that CBC parameters are not good markers. CRP was a good marker, especially when taken between 12-24th hours. The cut-off value was determined as 2.2 mg/dL. ESR was more valuable in measurements >72 hours. The best cut-off was determined as 19 mm/h. PCT was more significant between 12-24th hours. The best cut-off was determined as 0,19 mcg/L.

Discussion: Generally, the most common cause of fever is viral infections, and early viral infections can be difficult to distinguish from bacterial infections. A study found that gender, age, general appearance and duration of fever were useless in assessing the risk of SBI (3). Similarly, in our study, they were not significant. Many articles report that as the degree of fever increases, the probability of occult bacteremia increases (4). In our study, it was found that the probability of bacterial infection increases when the body temperature is especially ≥39°C. In studies, it has been reported that >30% of patients with clinical sepsis criteria could not detect positive blood culture (5). In a new study, it was emphasized that coagulase negative staphylococcus is the most common microorganism after pneumococcal vaccination (6). Leukocyte count alone is not a good marker (3,7,8). In the study conducted by Ayata et al., the sensitivity of leukocyte count above 15.000/mm^3 was 62% and specificity was 72% in the viral-bacterial infection distinction (5). In our study, cut-off 15.000/mm3 was selected and sensitivity was 33%, and specificity was 88%. There are also articles reporting that the number of leukocytes has lost its importance with the decrease of pneumococcal bacteremia in children with complete primary immunization (9,10). In our study leukocyte count has the lowest sensitivity and specificity. In a study, 98% sensitivity was reported with the use of CRP alone in the viral/bacterial infection differentiation (11). In our study, the optimal cut-off was determined as 2.2 mg/dL (61% sensitivity, 91% specificity). CRP was most useful, especially between 12-24th hours. ESR isn't a specific and early marker. In our study, it was more valuable in the measurements >72 hours. Low measurement of PCT eliminates the infection (12). The sensitivity and specificity ratios of using PCT alone and the combined use of leukocyte count, PCT and CRP are similar. For this reason, only PCT was found to be more useful in predicting SBI (13). Anna Fernandez Lopez at al. reported that PCT is a perfect marker for the detection of invasive infections in the emergency department, and that it may be possible to detect invasive infections early if the patient applies within 12 hours of the onset of the fever (14). In our study, PCT was the most sensitive and specific between 12-24th hours.

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SS139

EVALUATION OF THE FACTORS AFFECTING THE DURATION OF HOSPİTALIZATION AND THE LENGTH OF STAY IN PNEUMONIA PATIENTS IN A PEDIATRIC INFECTİOUS DISEASES SERVICE

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Aim: Community-acquired pneumonia is a significant cause of morbidity and mortality among children and is a leading disease for hospitalization. World Health Organization reports that pneumonia accounts for 15% of all deaths of children <5 years old. Recent studies demonstrated pneumonia hospitalization burden to be highest among children <5 years old. In this study, it was aimed to evaluate the ages and length of hospitalization of all pneumonia cases hospitalized in the pediatric infectious diseases service in the last 1 year.

Methods: All pneumonia cases between the ages of 1 month and 18 years who were treated in Dr. Behçet Uz Children's Hospital Pediatric Infectious Diseases Service between September 2018 and November 2019 were screened from the hospital computerized system and patient files retrospectively. Statistical analysis was performed with SPSS 22.0 program.

Results: A total of 126 pneumonia patients were screened. Sixty-one of the patients were female (48.4%), and 65 were male (51.6%). The mean age of the patients was 6.45, and the median age was 5.31 (the youngest was one month, the oldest was 17.7 years old). Of all patients, 18.3% was under two years, and 48.4% was under five years. The mean length of hospital stay was 8.41 days (minimum 1, maximum 33 days). The length of hospital stay under the age of 5 was 8.42, and 8.41 over the age of 5. There was no statistically significant difference between the two groups in terms of length of hospital stay. The average length of hospital stay was 12.09 days in patients who needed oxygen, while it was 7.59 days in the group that did not require oxygen. The difference between the two groups was statistically significant. (p=0.02) Fifteen of 126 patients (11.9%) had a concomitant chronic disease. Of all patients, 71 (56.3%) had used antibiotics before the application.

Conclusion: Pneumonia is a leading cause of hospitalization among children in the United States. Previous studies showed that pneumonia hospitalization burden to be higher among children <5 years old and the length of hospital stay is longer in younger age groups. In our study, it was found that approximately half of the hospitalized patients were under the age of 5. However, the length of hospital stay was not different from the group over five years old. The probable reason for this is that patients >5 years of age who are admitted to pediatric infectious diseases service are mostly complicated pneumonia cases.

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SS140

EVALUATION OF NEPHROTOXICITY İN PATİENTS RECEIVING INTRAVENOUS VANCOMYCIN THERAPY IN A PEDIATRIC INFECTIOUS DİSEASES CLİNİC: A CROSS-SECTİONAL DESCRİPTİVE STUDY

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Objective: Drug-induced nephrotoxicity is responsible for 20% to 60% of cases of acute kidney injury in hospitalized patients. The most common causes of nephrotoxicity are antimicrobials, analgesics, antihypertensive, chemotherapeutic and contrast agents. Vancomycin holds an important place among nephrotoxic drugs. In this study, patients who were hospitalized in the pediatric infectious diseases service and used vancomycin between 2018 and 2019 were evaluated for the development of nephrotoxicity.

Methods: Patients between the age of 1 month and 18 years, who were treated at Pediatric Infectious Diseases Clinic in Dr. Behçet Uz Child Disease and Pediatric Surgery Training and Research Hospital, between January 2018 and January 2020 were evaluated retrospectively. Patients who received intravenous vancomycin were evaluated. In our daily practice, vancomycin was given four times a day. The patients' information was obtained from the hospital computerized system and patient files. The data were analyzed using SPSS Statistics 22.0.

Results: A total of 96 patients who received intravenous vancomycin treatment were included in the study. Fifty-eight of the patients were female (60.4%), and thirty-eight were male (51.6%). The average age was 4.5 years; the median age was 3.75 years (the youngest is 1 month, the oldest is 17 years). The most common cause of indications for using vancomycin was central nervous system infections (63 patients, 65.6% bacterial meningitis, brain abscess and shunt infection) and pneumonia (16 patients, 16.6%). The median number of vancomycin doses was 28 (A minimum of 8 and a maximum of 168 dosages were calculated for one patient). Acute kidney injury was observed in two (2.0%) of 96 patients. In one of the patients, nephrotoxicity developed on the fourth day of treatment and the other on a ninth day, and their treatment was discontinued. It was observed that creatinine levels in these patients returned to normal levels after vancomycin was discontinued.

Conclusion: Vancomycin is used in limited indications in our daily practice. In a recent meta-analysis of ten pediatric studies, renal toxicity was reported in 12.7%of vancomycin recipients [(1)]. In a study of children with mild to moderate renal impairment treated with vancomycin, significant differences were observed for vancomycın trough concentration. And they were at increased risk of nephrotoxicity [(2)]. In our study, we found that vancomycin-related nephrotoxicity was low. The possible reason for this may be the absence of vancomycin therapy in children with kidney damage, and early discontinuation of vancomycin therapy when gram-positive bacteria are not isolated in culture. It should be kept in mind that acute kidney damage may be more common especially in patients with underlying disease and in long-term use.

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SS142

MICAFUNGIN USAGE IN NEONATES: EXPERIENCE OF A TERTIARY CENTER

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Introduction: Micafungin is one of three currently available echinocandins, along with caspofungin and anidulafungin, that are first-line treatment options in candidiasis and candidemia.Micafungin is indicated for the treatment of invasive candidiasis in addition to prophylaxis of Candida infections of neonates approved by European Medicines Agency (EMA). There are limited number of studies regarding micafungin usgae in neonates

Methods: In this cross sectional study, data of neonates who used micafungin during neonatal intensive care unit hospitalisation due to possible or proven invasive Candidia infection between May 2017 and October 2019 were retrospectively analysed.

Results: Totally 19 neonates , 6 premature-born with a median age of 17 days (min-max; 6-30 days), with median birth weight og 1700 gram (min-max; 400-3700 gram) were included. Risk factors for invasive candidiasis were present in all patients. The most commonly detected risk factors, present in all patients were central venous catheter presence and multiple antibiotic usage respectively. The other risk factors were intubation, total parenteral nutrition and surgery history. Blood culture yielded Candida spp in 7 patients.

Candida albicans (n=1), Candida glabrata (n=3), Candida parapsilosis (n=2), Candida gulliermondii (n=1). Median micafungin usage duration was 14 days (min-max; 10-14 days) None of these patients had experienced an abnormal kidney or liver function tests due to micafungin usage. There was no statistically significant difference in alanin aminotransferase, aspartate aminotransferase, creatinine levels checked at the beginning and end of micafungin treatment.

Result: As a conclusion, micafungin is a safe and effective treatment choice both in the treatment of neonatal culture proven or probable invasive candida infections that were caused by fluconazole resistant Candida strains in both term and preterm neonates using fluconazole prophylaxis.

SS143

EVALUATION OF THE GENERAL CHARACTERISTICS OF PATIENTS FOLLOWED UP WITH THE DIAGNOSİS OF INFLUENZA IN THE PEDIATRIC INFECTIOUS DİSEASES CLINIC

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Objective: Although influenza is usually an acute and self-limiting infection in healthy children, it can cause serious morbidity and mortality in some risky groups. In this cross-sectional study, the general characteristics, length of hospital stay, and risk factors of patients who were followed up in our hospital between January 2018 and January 2020 in the Pediatric Infectious Diseases service and the outpatient clinic will be evaluated.

Method: In Health Science Univesity Izmir Dr. Behçet Uz Pediatric Diseases and Surgery Training and Research Hospital, between January 2018 and January 2020, patients diagnosed as influenza with a result of multiplex polymerase chain test (PCR) or rapid influenza test from the nasopharynx in the Pediatric Infectious Diseases service and polyclinic were included in the study. Patients with other viral factors were not included in the study in multiplex PCR tests. Patients' age, gender, underlying diseases, whether they used oseltamivir and their length of hospital stay were recorded. Information about the patients was recorded on the computer system of the hospital and on the forms prepared from the patients' files.

Results: A total of 77 patients with influenza were identified. Thirty-nine (50.6%) of the patients were male, the median age was 4 years (2 months-18 years). 35% (n=27) of the patients were younger than two years old and 81.4% (n=22) of the patients younger than two years were hospitalized. 12 (15.6%) of the patients had the concomitant disease, while 24.4% (n=11) of the hospitalized patients had the concomitant disease. The median length of hospital stay was 7 days (2-30 days). 81.8% (n=63) of the patients had to fever at the time of admission. While oseltamivir was used in 70% of the patients (n=54), antibiotics were used in 58.4% (n=45). While two patients needed intensive care, 3 patients had seizures and 3 patients had myositis.

Discussion: Das RR et al. [(1)] found that of the 85 (55 boys) children infected by influenza, 35.3% were below 5 years of age. The mean age of these children was 7.5±3.5 years. Twenty-nine (34%) patients had an underlying co-morbid condition. Influenza-associated hospitalization rates were highest in the youngest children with the underlying disease [(2)]. Moreover, our findings supported this.

Conclusion: As a result of our study, most of the inpatients because of influenza do not have any underlying disease and most of them are children under two years of age.

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SS144

INVESTIGATION OF PATİENTS TREATED IN A NEGATIVE PRESSURE ISOLATION ROOM OF THE PEDIATRİC INFECTIOUS DISEASE SERVICE

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Introduction: The aim of the negative pressure room is to prevent the release of infected droplets that can hang in the air and travel long distances by air movement. Patients with airborne infectious diseases (pulmonary or laryngeal tuberculosis, varicella, measles, SARS, hemorrhagic fever) are eligible to be monitored in negative pressure isolation rooms so that they do not infect other patients and medical personnel.

Methods: Negative pressure isolation room in Dr Behçet Uz Children's Diseases and Surgery Training and Research Hospital was opened on 28 May 2019 with the support of Izmir Tuberculosis Control Association. In our study, the demographic characteristics, age, hospitalization period, and clinical diagnoses of patients hospitalized in negative-pressure room among 6 months were evaluated retrospectively.

Results: In our study, 35 patients who were hospitalized in a negative pressure isolation room between July 2019- December 2019 were evaluated. Nineteen (54%) of the patients were male and 16 (46%) were female the mean age was 8.4 years (5 months-17 years). The mean duration of hospital stay was 3,5 days (1-13 days). One patient was diagnosed with measles, 10 with varicella, 3 with disseminated zoster. Off-indication 2 meningitis, 1 congenital neutropenia and 2 infectious mononucleosis patients were admitted to the hospital due to service occupancy. Sixteen of our patients were followed up with suspicion of tuberculosis. Two of these patients were diagnosed with pulmonary tuberculosis by radiological and bacteriological examinations, antituberculosis treatment was initiated. One patient was diagnosed with tuberculosis lymphadenitis. Six patients were hospitalized for investigation due to family tuberculosis contact. The remaining 7 patients were hospitalized with hemoptysis due to the complaint of hemoptysis and tuberculosis was ruled out.

Conclusion: In addition to the clinical needs in hospitals, it is important to provide a hygienic environment and to be sustainable. Ventilation, heat and air conditioning systems of the hospital environment should be constructed in a way to protect the health of patients and health personnel. The negative pressure isolation room to be opened in child and adult infection services will decrease the rate of patient death and hospital infections, shorten the duration of hospitalization, reduce the medical expenses and will create safe spaces for health personnel and visitors.

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SS145

IS NEUTROPHIL/LYMPHOCYTE RATIO A MARKER FOR THE DIAGNOSIS OF ACUTE PYELONEPHRITIS IN CHILDREN?

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Introduction: UTI is defined as upper and lower UTI according to the inflammation site. Upper UTI (pyelonephritis-APN) can cause serious morbidities like HT, kidney scar formation and chronic kidney failure [(1)]. Therefore, early diagnosis of APN and timely initiation of appropriate antibiotics is a key point in the management of UTIs. Various direct and indirect examinations have been proposed to make the differential diagnosis of upper and lower UTIs [(1,2)]. However, several studies showing that NLR is a measure of systemic bacterial inflammation and is used as a guide for the diagnosis and prognosis of various diseases have also been conducted [(3)]. However, there are few studies on the usability of NLR as a diagnostic and prognostic tool for UTI [(4)].

Methods: Data of 77 children diagnosed with UTI were grouped as lower UTI (Group I) and acute pyelonephritis (APN) (Group II). 29 healthy children constituted the control group (Group III). Ages, genders, application complaints, WBCs, NEU counts, CRP levels, ESRs and NLRs of the patients were recorded. The study protocol was approved by the Institutional Ethics Committee of Ordu University (2020/20).

Results: Of 106 cases included in the study, 79 (74.5%) were girls and 27 (25.5%) were boys. The mean age of the patients was 42.5±49.51 (1-208) months. Of 77 patients with UTI, 76.4% (n=59) were diagnosed with cystitis (Group I) and 23.4% (n=18) were diagnosed with pyelonephritis (group II). The most common application complaints of the patients were fever 44% (n=34). There was no significant difference between cystitis (Group I) and control (Group III) groups in terms of WBC, NEU count, ESR and NLR (respectively p:0.083, p:0.654, p:0.91, p:0.162) however there was a significant difference with respect to CRP level ($p<0.05$). For all measurements (WBC, NEU count, CRP, NLR, ESR), the values were significantly higher in APN group ($p<0.05$) (Table 1).

Table 1. Evaluation of three groups in terms of different variables.

Değişken	Group I[a] (Sistit) (n=59)	Group II[b] (APN) (n=18)	Group III[c] (Kontrol) (n=29)	P value
WBC (/mm³)	11.51±3.81	20±7.35	9.26±3.85	<0.001 [a,b]<0.001, [a,c]=0.083, [b,c]<0.001
Neu	5.46±3.76	14.59±7.25	4.81±2.89	<0.001 [a,b]<0.001, [a,c]=0.654, [b,c]<0.001
NLR	1.54±0.98	4.87±4.25	1.60±1.29	<0.001 [a,b]<0.001, [a,c]=0.162, [b,c]=0.002
ESR (mm/hr)	31.6±23.4	48.4±36.1	12.2±8.3	<0.001 [a,b]<0.001, [a,c]=0.091, [b,c]<0.001
CRP (mg/L)	1.74±0.59	8.74±3.71	0.52±1.03	<0.001 [a,b]<0.001, [a,c]<0.001, [b,c]<0.001

Discussion: Recurrent upper UTI delays in its diagnosis may lead to serious complications like hypertension, scar formation in the kidney, chronic kidney failure, and growth retardation. Although clinical findings and laboratory parameters (such as white blood cell, CRP, ESR) are used to differentiate upper and lower UTI, they cause difficulties in diagnosis. While DMSA is the gold standard in differentiating APN from lower UTI, it has disadvantages like not being able to be performed in all medical centers, being an expensive method, exposing children to radioactive chemicals and sometimes requiring sedation. Moreover, DMSA can not differentiate old scar from acute parenchymal involvement [(5,6)]. Therefore, there is a need for an easier and more practical method. Acute phase reactants like serum CRP, ESR and WBC, which are used to differentiate acute APN from lower UTI, are not sensitive and specific enough [(7)]. NLR, which is a fast and easily accessible marker, has

been shown to be associated with infections with inflammatory responses like sepsis and infective endocarditis [8,9]. Lee et al. showed in a study performed on adult patients admitted to the emergency department that NLR is a reliable marker in predicting UTI with bacteremia [10]. It has been observed in another study conducted on pediatric patients that there was a significant difference between two groups with and without DMSA defect with respect to NLR [4]. It has been found in another study having examined 179 children with UTI retrospectively that NLR was significantly correlated with the cortical defect in the first DMSA and the permanent cortical defect in follow-up DMSA screening [11]. In this study, NLR values were found to be significantly higher in pyelonephritis group when compared to cystitis group. When this studies are evaluated together, NLR values may be an alternative to a costly and disadvantageous method like DMSA for the diagnosis of pyelonephritis. However, it would be useful to conduct studies on a larger number of subject groups in order to explain the issue more clearly.

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SS146

COMPARISON OF SERUM AND CEREBROSPINAL FLUID PROCALCITONIN LEVELS WITH ACUTE PHASE REACTANS IN EARLY DIFFERENTIAL DIAGNOSİS OF CHILDHOOD VIRAL AND BACTERIAL MENINGITIS

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Introduction: Meningitis is one of life-threatening infections that often occur with viral or bacterial agents.
In cases where infections such as meningitis develop, acute phase proteins (AFP) such as C-reactive protein (CRP) appear as a marker of the body's response to infection. But AFP are not always useful in differentiation of viral and bacterial infections; they also increase in non-infectious diseases. Procalcitonin is a marker used in the differential diagnosis of viral and bacterial infections. It was aimed to determine the value of serum and cerebrospinal fluid (CSF) procalcitonin levels in early separation of viral and bacterial meningitis and to compare them with acute phase markers.

Methods: In the study, 75 patients who underwent lumbar puncture with a preliminary diagnosis of meningitis at Izmir Dr Behcet Uz Children's Education and Research Hospital between March-October 2008 were retrospectively screened. The average age was 38.87 (±40.21) months, 43 were boys and 32 were girls. The study included who was diagnosed bacterial (15) and viral (6) meningitis and non-infectious diseases (7) as control group with clinical and laboratory findings.
Detection of> 5 leukocytes/µL in CSF was accepted as meningitis. Bacterial or viral meningitis was diagnosed by CSF direct and gram-giemsa stained microscopic examination, CSF biochemistry (protein values), CSF culture antibiogram (CAB) findings. The groups were compared in terms of serum and CSF procalcitonin, ESH, CRP levels.

Result: When bacterial and viral meningitis group were compared, serum and CSF procalcitonin levels were significantly higher in the bacterial group.Compared to the bacterial meningitis group and the group diagnosed with non-infectious disease, CSF procalcitonin levels were significantly higher in the bacterial group. When the bacterial group and the viral group were compared in terms of ESH and CRP levels, there was no difference. Serum and CSF procalcitonin levels were positively correlated with CRP in all groups. There was a significant difference between bacterial meningitis group and non-infectious disease group in terms of ESH and CRP.

Discussion: The most common cause of CNS diseases with fever in children is CNS infections. It occurs most often with viral and bacterial agents. Viral agents are more common than bacterial agents. Bacterial meningitis, one of the CNS infections, is one of the most serious infections in infants and older children. This infection has a high risk of acute complications and long-term morbidity. It may cause mortality. Viral meningitis is mostly a self-limiting disease, but in some cases it can cause morbidity and mortality. Early and accurate diagnosis of bacterial and viral meningitis has different treatment and prognosis is very important. With early diagnosis and appropriate treatment, it is possible to reduce mortality and morbidity, prevent unnecessary antibiotic use and reduce hospital stay. Signs and symptoms are often nonspecific in the early period of bacterial and viral meningitis. It is not always possible to make a differential diagnosis with physical examination, blood-CSF findings. Detecting the agent is not always possible and takes time. Procalcitonin is a marker used in the diagnosis of bacterial infections and in monitoring the response to treatment. In some studies, it has been stated that procalcitonin has a diagnostic value in early differentiating viral and bacterial meningitis in children. While CRP starts to rise in 12-24 hours, procalcitonin rises as early as 4 hours. In our study, although the number of patients was low, it was shown that procalcitonin was higher in bacterial meningitis and increased early in the separation of viral and bacterial meningitis.

SS147

DOES THE NEEDLE THICKNESS AND THE NUMBER OF PASS AFFECT THE COMPLICATION IN ULTRASOUND-GUIDED PERCUTANEOUS TRU-CUT BIOPSIES IN THE CHILDREN?

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Objectives: The aim of this study was to compare complications between different needle thickness and number of access in ultrasound-guided percutaneous liver, kidney and tumor biopsies in the pediatric patients.

Methods: Ultrasound-guided tru-cut biopsies were included between 03/2019 and 12/2019. Biopsy was performed under local anesthesia and sedation with a 16 Gauge(G) or 18G semi-automatic biopsy needle. All patients were evaluated by the same radiologist for complications at 24th hour. Hemorrhage requiring transfusion, intervention/surgery and death were identified as major complications. The technical success was based on the pathology reports in which sampling was adequate or not. Complications varying to needle size (16G vs 18G) and number of pass (2 or less vs 3 or more) were examined using Fisher's Exact Test. $p<0.05$ was considered statistically significant.

Results: The median age of the 55 patients (26 females, 29 males) included in the study was 9 years (mean±standard deviaton: 8.1±5.1, range: 0.5-17). 41, 11, and 3 patients underwent renal, liver and tumor biopsies, respectively. Sampling was adequate in all and technical success was 100%. Minor hematoma with a maximal thickness of 15mm was seen in 22% (n=12). No major complication was observed. 16G needles were used in 48 and 18G in 7 cases. Hematoma was seen in 25% and 0% in 16G and 18G groups, respectively. The difference was not statistically significant (p=0.326).

Biopsy was done with one pass in 7, two passes in 28, three passes in 13, four passes in 6 and five passes in one case with a total pass of 131. Hematoma was seen in 8.6% (n=3) of those who had 2 and less passes, 45% (n=9) of those who had 3 or more passes; this difference was statistically significant (p=0.005).

Conclusion: Ultrasound-guided tru-cut biopsy with 16G and 18G needles can be performed with a high technical success in children. Three or more passes may increase the risk of minor hematoma.

SS148

THE EFFECTIVENESS OF ANIMATED BIOFEEDBACK THERAPY IN CHILDREN WITH RECURRENT URINARY TRACT INFECTİONS AND BLADDER DYSFUNCTIONS

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Introduction: Bladder dysfunction has an important role in the etiology of recurrent urinary tract infections (UTIs). Elimination of bladder dysfunction is often sufficient to control recurrent UTIs. This study aims to investigate the effectiveness of animated biofeedback therapy in children with bladder dysfunction and recurrent UTIs.

Method: The medical records of pediatric patients who were followed-up with the diagnosis of recurrent UTIs and bladder dysfunction in Antalya Training and Research Hospital were evaluated retrospectively. Patients who were followed up with animated biofeedback therapy were included in the study. The uroflowmetry and electromyography (EMG) parameters obtained before and after the treatment of the children were recorded. Dysfunctional voiding was defined as habitual contraction of the urethral sphincter during the voiding phase, which was demonstrated by uroflowmetry and EMG showing staccato pattern and increased EMG activity while voiding. Overactive bladder was defined as urinary urgency, urinary incontinence and/or frequent urination without EMG activity on uroflowmetry-EMG. Animated biofeedback therapy was performed once a week for the first month, once every two weeks for the second month and once a month for the following months.

Results: A total of 11 paediatric patients, 7 (63.6%) female, with a median age of 9.6 yıl (IQR 7.6-10.4) years were included in the study. Six patients (54.5%) had overactive bladder and 5 (45.5%) had dysfunctional voiding. The median age at the first UTI diagnosis and the occurrence of the bladder dysfunction symptoms were 6.2 years (IQR 4.6-8.9) and 5.3 (IQR 4.1-7.1) years, respectively. The median age at the onset of biofeedback therapy was 8.1 years (IQR 5.7-9.3) and the median follow-up period after biofeedback therapy was 17.9 (IQR 16.5-19.9) months. Symptoms and uroflowmetry parameters of the patients before and after biofeedback therapy are presented in Table 1. Animated biofeedback therapy significantly reduced the post-voiding residual volumes of patients (36.0 mL vs 18.0 mL; p=0.043).

Discussion: Biofeedback therapy is a safe and effective treatment option in patients with bladder dysfunction. In particular, it decreases the frequency of infections in patients with recurrent UTIs.

Table 1. Symptoms and uroflowmetry parameters before and after biofeedback therapy.

Variable	Before biofeedback therapy (n=11)	After biofeedback therapy (n=11)	p
Symptoms			
Pollacuria, n (%)	7 (63.6)	2 (18.2)	0.025
Urgency, n (%)	9 (81.6)	3 (27.3)	0.014
Urge incontinence, n (%)	9 (81.6)	2 (18.2)	0.034
Intermittent urination, n (%)	5 (45.5)	0	0.025
Holding maneuvers, n (%)	8 (72.7)	3 (27.3)	0.025
Nocturnal enuresis, n (%)	7 (63.6)	2 (18.2)	0.025
Constipation, n (%)	3 (27.3)	0	0.083
UTI, n (%)	11 (100)	1 (9.1)	0.002
Uroflowmetry parameters, median (min-max)			
Voided volume, mL	210 (56-422)	217 (126-307)	0.594
Qmax, mL / s	17.6 (3.5-39.5)	17.5 (9.5-41.6)	0.047
Qave, mL / s	8.5 (1.7-14.0)	9.8 (4.5-13.4)	0.230
Flow time, s	31.0 (11.0-50.0)	24.0 (12.0-43.0)	0.624
Voiding time, s	38.0 (12.0-52.0)	31.0 (20.0-63.0)	0.359
Postvoiding residue, mL	36.0 (9.0-42.0)	18.0 (4.0-26.0)	0.043

SS149

IS OUR DIAGNOSIS TRUE FOR ENURESIS NOKTURNA?

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Objective: Monosymptomatic enuresis nocturna (MEN) is defined as involuntary sleep urinary incontinence in children over 5 years old, and there is no other symptom during the day except for urinary incontinence during night sleep. On the other hand, non-MEN is a condition accompanied by daytime findings such as daytime urinary incontinence, feeling of tightness, frequent urination and chronic constipation. The tests and the treatment given for these two voiding disorders are different. More importantly, differential diagnosis for MEN is important since non-MEN would have a relationship with urinary tract infection, secondary vesicoureteral reflux and renal scarring. The aim of this study was to determine the frequency of cases diagnosed with non-MEN among the patients who were referred with the pre-diagnosis of MEN.

Method: The data of the patients who were referred to our pediatric nephrology clinic with the pre-diagnosis of MEN were reviewed retrospectively.

Results: After anamnesis, while 96 (93.2%) of the 102 cases included in the study were diagnosed as MEN, 7 (6.8%) cases had daytime incontinence symptoms accompanied by nighttime urinary incontinence, and 7 (6.8%) had UTI, 13 (15.5%)had pathology in ultrasonography and 8 cases (7.8%) had an increase in PVR urine. When the patients were evaluated after laboratory examination, it was found that 35 of the 102 cases (34.9%) who were referred with the prediagnosis of of MEN were diagnosed as non-MEN (overactive bladder, dysfunctional voiding etc) and 7 cases (6.8%) were normal. Supportive treatment was given to 37 (35.9%) cases, desmopressin treatment was given to 26 (25.2%) cases and alarm treatment was given to 1 case. In non-MEN group, 31 (30.1%) cases had anticholinergic treatment, 5 (4.9%) cases had timed-dual voiding with constipation treatment, 2 (1.9%) cases had biofeedback therapy, and 1 (1%) case had alpha-blocker.

Conclusion: Since examination, treatment and results of MEN and non-MEN are two distinct voiding disorders that differ from each other, anamnesis and tests and differential diagnosis are important. Thus, unnecessary examination for MEN patients and similarly insufficient examination and treatment for non-MEN patients can be prevented.

Keywords: Enuresis nocturna, incontinence, child

SS151

MASKED HYPERTENSION FREQUENCY AND END ORGAN DAMAGE IN OBESE CHILDREN

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Objective: Obesity and hypertension are both risk factors for chronic renal disease separately but they enhance each other because secondary hypertension is seen in obese children frequently. It is possible not to detect hypertension in pediatric population in the first visit. If child has masked hypertension, it is also possible not to detect hypertension even various visits. The purpose of this research is to detect masked hypertension before end organ damage especially in obese children.

Method: In this study, aged 8 to 17 160 obese children were selected who were followed up in pediatric nephrology and pediatric endocrinology departments of Dr. Behçet Uz Child Disease and Pediatric Surgery Training and Research Hospital and Manisa Celal Bayar University. Children who had other chronic diseases or genetic syndromes were removed from the research. Masked hypertension diagnosis was made by using ambulatory blood pressure monitor (ABPM). According to end organ damage diagnosis; echocardiography, microalbumin excretion rate and fundus examination were used.

Findings: Avarage of age 10.9±2.8 160 obese cases (82 male, 78 female) were chosen. 79 of them had hypertension, 6 of them had white coat hypertension, 13 of them had masked hypertension diagnosis. %79 had left ventricular hypertrophy, %61 had microalbuminuria and %69 had retinopathy of masked hypertension diagnosed cases. %12 had left ventricular hypertrophy, %7.5 had microalbuminuria and %4 had retinopathy of hypertension diagnosed cases. End organ damage ratio found significantly high in masked hypertension diagnosed children.

Results: Obesity and hypertension are important risk factors for glomerulosclerosis. End organ damage possibility is high in masked hypertension so cardiac, renal and retinal diseases are seen often in those cases. Consequently ambulatory blood pressure monitor is vital for the early diagnosis and management of masked hypertension.

SS152

ESSENTIAL HYPERTENSİON INDUCED TARGET ORGAN DAMAGE

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Aim: With the advancing technology and increasing diagnostic methods, essential hypertension (HT) is increasing in childhood. The long-term target organ damage is now seen even in the childhood age group. In this study, our aim is to investigate the relationship between ambulatory blood pressure monitor (ABPM) measurement values and target organ damage

Method: The study included 31 patients who were followed up in the nephrology outpatient clinic between January and August 2019 with the diagnosis of essential HT. Patients with chronic disease, genetic syndrome and those with primary hypertension were excluded from the study. 24 of the patients were male and 7 were female. Their average age was 13.7 years. The patients were divided into two groups according to their systolic and diastolic loads in ABPM measurements. Left ventricular hypertrophy (LVH), retinopathy in 35%, and microalbuminuria in 41% were detected in 59% of patients with systolic load. Left ventricular hypertrophy (LVH) was found in 44% of patients with diastolic load, retinopathy in 17% of patients and microalbuminuria in 17%. LVH was seen in 100% of patients with diastolic and systolic load, retinopathy in 60% and microalbuminuria in 40%.

Discussion: In the presence of hypertension, target organ damage is an expected result in patients. Microalbuminuria is an important risk factor for the cardiovascular system along with the kidney among target organ involvements. Therefore, regardless of the age and duration of the patient with hypertension, it should be closely monitored in terms of target organ damage.Particularly, target organ damage is seen more common in the case of both increased diastolic and systolic blood pressure .

Keywords: Hypertension, ABPM, target organ damage

SS153

AMBULATORY BLOOD PRESSURE MONITORING IN AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE IN CHILDREN

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Aim: The pathogenesis of hypertension is a significant independent risk factor for progression to end stage renal disease in in autosomal dominant polycystic kidney disease (ADPKD). The prevalence of hypertension is 10 to 20% even in normal renal function in children with ADPKD. The aim of the study was to identify hypertension in children and adolescents in autosomal dominant polycystic kidney disease (ADPKD) by the application of ambulatory blood pressure monitoring (ABPM).

Methods: Serum blood pressure (BP) was measured from the right arm with proper sized cuff, three times, each after 20 min of resting. Blood pressure more than a percentile of 95 was considered as hypertension. Definition and staging of ambulatory hypertension was based on blood pressure (BP) levels and BP load, obtained from ambulatory BP monitoring (ABPM). 24 hours mean systolic and diastolic blood pressure, mean daily and mean nocturnal systolic and diastolic blood pressure were measured. Dipping is the percentage of the decrease of systolic and diastolic blood pressure (BP) during the night was calculated.

Results: 32 (15 male, 17 female) children and adolescents with the mean age of 14,6+/-3, 8 years were investigated. The diagnosis was based on family history and ultrasound examination. At the time of the study patients were asymptomatic and normal office blood pressure measurements. All had glomerular filtration rates (GFRs) > or=65 ml/min per 1.73 m2. 44% patients (%) were defined as hypertensive by casual measurements at office. ABPM was hypertensive at daytime and night time in 7 patients (21,8%) and target organ damage was in 3 patient on heart and in one patients on eye. The nocturnal dip was reduced in 46% patients. 25 patients had normal blood pressure, neither of the patient was diagnosed of masked hypertension, 8 had white coat hypertension and 7 had hypertension by ABPM. We have found no statistically difference between the normotensive group and hypertensive group with a dipper blood pressure profile.

Conclusions: ABPM helps to make an early diagnosis of hypertension isthe most important treatable factor for progression of the disease and important to identify those patients with white coat hypertension in PKD.

Referance

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SS154

EVALUATION OF INFECTİOUS FACTORS DETECTED BY MULTIPLEX-PCR IN HOSPITALIZED CHILDREN DUE TO ACUTE LOWER RESPIRATORY TRACT INFECTİON
'M-PCR AND LOWER RESPİRATORY TRACT INFECTİONS'

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Aim: Lower respiratory tract infections (LRTI) are significantly responsible for morbidity and mortality in children. The causative pathogen is important in the clinical course, but the required treatment is usually initiated emprically in clinical practice. Multiplex-PCR (M-PCR) is one of the new tests used to detect the microorganism located in the respiratory epithelium. The aim of this study is to evaluate the microbiologic agents determined by M-PCR in the diagnosis of acute LRTI and the effects of these factors on clinical, radiological and laboratory findings.

Methods: The medical records of pediatric patients hospitalized for acute LRTI in İzmir Dr. Behçet Uz Children's Hospital between April 2015 and April 2017 were evaluated retrospectively. The relationship between clinical and laboratory markers on the type of pathogen and the distribution by season and month were investigated.

Results: The number of the patients in the study group was 152 (M/F: 83/69; mean age: 4.91±3.76). The age range in which M-PCR is most frequently found positive was 3 months-5 years. The rate of M-PCR positivity was 70% during fall and winter while 54% during spring and summer (p:0.01). The most common factor in M-PCR (+) cases was viral factors (62.13%) and the most common virus was Rhinovirus (32%). On the other hand, bacteria were detected in 37.9% of the patients, while *S.pneumoniae* was the most common bacteria (22.3%). Although detected by M-PCR, it was noteworthy that H. Parechovirus and H. Influenzae were not obtained in any specimen.

Conclusion: M-PCR was found to be highly positive (67%) in documenting a factor in LRTI. Thus, M-PCR may play an important role in reducing the use of unnecessary antibiotics and detailed laboratory tests fort he patient's with LRTI most of which are caused by viral pathogens.

Keywords: Respiratory infection, Multiplex-PCR, hospitalized child

SS156

THE EFFECT OF RESTRICTING SCREEN TIME IN THE TREATMENT OF PRIMARY MONOSYMPTOMATIC NOCTURNAL ENURESIS

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Aim: To determine whether or not restricting screen time would be effective in the success of primary monosymptomatic nocturnal enuresis (PMNE) treatment.

Method: The study included treatment-naive moderate (3-5 wet nights) and severe (>5 wet nights) PMNE patients. Exclusion criteria were the presence of neurological disease, obstructive respiratory tract disease, diabetes mellitus, or body mass index >95th percentile. Before starting treatment, a record was made of a bedwetting diary, a night-time chart and screen time over 1 week (television, tablet, computer, mobile telephone, videogame console). Patients in Group 1 were treated with 120 mcg Desmopressin Melt (DeM) and as supportive treatment were instructed to reduce daily screen time to less than 60 mins. Patients in Group 2 were administered 120 mcg DeM and no supportive treatment was recommended. Treatment response was measured at the end of 3 months. Evaluation was made as full response=100% dryness, partial response=50-99% dryness, and failure=<50% improvement. In patients with full response in both groups, recurrence was questioned at 1 month after termination of the DeM treatment. The groups were compared statistically in respect of descriptive data, treatment response and recurrence.

Results: Before treatment, the groups were statistically similar in respect of age, gender, symptom severity, number of wet nights per week, and daily screen time (p=0.708, p=0.765, p=0.559, p=0.569, p=0.532, respectively). At the end of 3 months, the median screen time was 52 mins (30-60 mins) in Group 1 and 120 mins (76-180 mins) in Group 2 (p<0.001). The full response to treatment was 70% (14/21) in Group 1 and 31% (5/23) in Group 2, and the difference was statistically significant (p=0.021). Failure in treatment was determined as 5% (1/21) in Group 1, and 30% (7/23) in Group 2 (p=0.048). The recurrence rate following treatment was lower in Group 1 (7%) than in Group 2 (60%) (p=0.037) (Table 1).

Conclusion: Several studies have proven that prolonged screen time has a negative effect on the neurological, psychosocial, academic, and skills development of children. This study was planned with the hypothesis that there could be a relationship between PMNE and screen time. The results of the study showed that restricting screen time in addition to the classic treatment for PMNE had a positive effect on treatment response and recurrence. There is a need for further randomised, controlled studies and meta-analyses, as required by evidence-based medical regulations, to support these results.

Table 1. Descriptive data, response to treatment, and recurrence rates of the groups.

	GROUP 1 (n=21)	GROUP 2 (n=23)	p
Age (years) (median, min-max)	7 (6-12)	7 (6-13)	0.708
Gender (M/F)	11/10	11/12	0.765
Symptom severity (moderate/severe)	11/10	13/10	0.559
Pre-treatment number of wet nights (median, min-max)	6 (3-7)	5 (3-7)	0.569
Pre-treatment daily screen time (median, min-max) - mins	135 (90-210)	126 (68-185)	0.532
Post-treatment daily screen time (median, min-max) -mins	52 (30-60)	120 (76-180)	<0.001
Full response to treatment %(n)	70% (14/20)	31% (5/16)	0.021
Failure of treatment %(n)	5%(1/21)	30% (7/23)	0.048
Recurrence %(n)	7%(1/14)	60% (3/5)	0.037

SS157

CLINICAL FEATURES OF PEDIATRIC CASES WHO APPLY TO THE EYE CLINIC URGENTLY

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Purpose: It was aimed to investigate the reasons for the application and clinical features of pediatric cases who applied to our eye clinic urgently.

Method: The records of 118 patients who applied between November 2018 and December 2019 were examined. Age, gender, history and eye diagnosis of the cases were evaluated. While blunt injuries, injuries with sharp-penetrating objects and chemical-heat damages were accepted as traumatic causes; itching, swelling and burrs were identified as non-traumatic causes. The formation of trauma in indoor (inside the home - in the school) or outdoor (in the park - on the street) area was examined. The cases according to age were determined as group 1 (under 10 years old) and group 2 (between 10 and 18 years old). Mann-Whitney U-test and t-test were used for statistical evaluations.

Results: The mean age was 6.1±3.7 years in group 1; 15.2±4.3 years in group 2 (p=0.042). There were 56 patients in group 1 and 62 patients in group 2. In group 1, 27 (48.2%) of the cases were female and 29 (51.8%) were male. In group 2, 25 (40.3%) of the patients were female and 37 (59.7%) were male. While there was no significant difference in group 1 in terms of gender (p=0.711), the number of male in group 2 was significantly higher than that of female (p=0.039). In group 1, 38 (67.8%) of the patients applied for traumatic reasons and 18 (32.2%) applied for non-traumatic reasons. In group 2, trauma was detected in 40 (64.6%) cases and non-traumatic causes in 22 (35.4%) cases. The application for traumatic reasons was more frequent in both groups. When the causes of trauma were examined, blunt trauma in 17 (44.7%) cases, sharp-penetrating trauma in 12 (31.6%) cases and chemical-heat trauma in 9 (23.7%) cases were detected in group 1. In group 2, blunt trauma in 19 (47.5%) patients, sharp-penetrating trauma in 11 (27.5%) patients and chemical-heat trauma in 10 (25%) patients were found. In both groups, the most common cause of trauma was blunt trauma. In both groups, non-traumatic causes were infectious blepharoconjunctivitis, allergic conjunctivitis and preseptal-orbital cellulitis according to decreasing frequency. In group 1, eye trauma occurred in 36 (64.2%) cases in indoor area and in 20 (35.8%) cases in outdoor area. However in group 2, 24 (38.7%) of injuries occurred in indoor area, 38 (61.3%) in outdoor area. Trauma in indoor area was higher in patients under the age of 10 (p=0.025), while trauma in outdoor area was more common in patients between the ages of 10 and 18 (p=0.031).

Conclusion: Blunt trauma in children is the most common reason for the application to the eye clinic urgently. With increasing age, males become more prone to trauma, and the place of trauma shifts from closed areas to open areas.

Keywords: Ocular infection, ocular trauma, pediatric eye emergency

SS158

THE EVALUATION OF THE NUTRITIONAL STATUS OF HOSPITALIZED INFANTS

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Introduction: Malnutrition is an insufficient nutrition that can be prevented or treated by appropriate alimentation. Infancy is a period of rapid growth and development. So, nutritional problems can easily lead to both malnutrition and health problems in the future life of the child. For the assessment of nutritional status and the degree of malnutrition; the child's height, body weight, body mass index(BMI) measurements are compared with the normal values of the same age group in addition to the history and physical examination. Anthropometric evaluation, allow for early diagnosis and are useful for long-term follow-up. In this study, it was aimed to investigate the nutritional status of hospitalized infants and the relation of nutritional status with socio-demographic characteristics of the family, underlying acute or chronic diseases, nutritional status and anthropometric measurements.

Methods: Children, who hospitalized in the Department of Pediatry in Izmir Training and Research Hospital between December 2009-December 2012 and their mothers agreed to participate in the study voluntarily, were included. In this cross-sectional study, information about demographic features and nutritional status of the patients were identified by talking. Data was evaluated by using SPSS (20.0, Windows).

Results: In the study, 298 patients, who were between 1-24 months (median age: 6 months), were included. Malnutrition rate of this hospitalized children was 31.5%. When the adequate and inadequate exclusively breastfed patients were compared; there was a significant relationship between the BMI percentiles, relative weight and number of hospitalizations($p<0.05$). Rate of having chronic diseases was 33.9% and malnutrition was found on 51.5% of these patients; severe malnutrition according to weight for height was identified on 6.9% of them. Malnutrition for the patients without any chronic diseases was 21.3%. There was a significant correlation between the number of days of hospitalization, the presence of chronic illness, BMI percentiles and relative weight($p <0.05$). The number of hospitalizations was significantly high in patients with chronic diseases, lower relative weight and BMI percentile, nutritional problems and low family incomes($p<0.05$).As the relative weight decreased, the thickness of the triceps and the arm circumference decreased and there was a positive correlation between them($p<0.001$ and $p<0.001$)[Pearson correlation, r:0.376(CI 0.23-0.52) and r:0.37(CI:0.23-0.51)]. Patients with chronic diseases most frequently present with respiratory system diseases(40.6%). The second most common reason was infectious diseases (21.8%). Patients with chronic disease and BMI less than 5th percentile were most frequently admitted with respiratory and infectious diseases to hospital (41.5% and 29.3%; respectively). Anthropometric measurements of patients were found to be significantly lower in the presence of chronic disease($p<0.05$)

Conclusions: Malnutrition is a serious problem especially in developing countries such as our country. Mild and moderate malnutrition were identified even in children who were not accompanied by chronic disease and who were admitted to acute illness. For this reason, assessment of nutritional status at the hospital admission is important. Early diagnosis and treatment of nutritional disorders can reduce mortality and morbidity. It should be aimed to provide better recovery and improvement in the treatment of malnutrition in hospitalized infants and to improve quality of life and to raise healthy individuals.

Keywords: Anthropometry, hospital, infant, malnutrition, nutrition

SS159

EVALUATION OF REFRACTIVE ERRORS AND AMBLYOPIA FREQUENCY IN CHILDREN

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Introduction: Amblyopia was first described by Leclerc in 1707 [1]. Although many different definitions have been made for amblyopia, the main definition is to detect low vision without any visible organic pathology detected in the examination [2]. It is estimated that 12.8 million children in the world between 5 and 15 years old have amblyopia [3]. Early diagnosis and treatment of refractive errors is very important during childhood. Some of the refraction errors can lead to amblyopia and cause permanent lifelong vision impairment. Correction of the refractive errors is the most important step in this process [4].

Purpose: The aim of our study is to evaluate refractive errors and amblyopia prevalence among children who applied to general eye outpatient clinic.

Methods: Medical records of a total of 1157 patients aged 4-11 attending a general outpatient ophthalmology clinic between January and December 2019 were screened retrospectively and 760 subjects with complaints of visual impairment or diagnosed with refractive disorders were included. Refractive errors were defined according to spherical equivalent (SE, spherical + 1⁄2 cylindrical) ; Myopia SE ≤ -0.50 D, Hyperopia SE ≥ +1.00 D, astigmatic cylindrical value ≥ 1.00 D, and anisometropy SE difference ≥ 1.00 D. Among 760 subjects included in the study, 363 (48,8%) were girls and 392 (52.2%) were boys. The mean age of girls was 7.06±2.23 and it was 8.87±1.92 for boys. Two hundred thirty five (30.9%) of 760 subjects had emmetropia. When 525 (69.1%) subjects with refractive disorders were considered, 264 (50.3%) had myopia, 150 (28.6%) had hypermetropia, and 111 (21.1%) had astigmatism. Amblyopia was present in 61 (11.6%) subjects. There was no statistically significant difference between girls (31) and boys (30) in regard to the frequency of amblyopia (p=0.66). When all the children aged 4-11 years admitting to the ophthalmology clinic in the year 2019 were evaluated, refractive disorders were present in 45.4% and amblyopia was present in 5.27% of the subjects.

Results: Researches show that the earlier amblyopia treatment is started, the greater the success of treatment [5,6,7]. In our study, amblyopia was detected in 5.27% of all examined children and 11.6% of those with refractive errors. This rate was similar when compared with the literature (1-5%) (p> 0.05). Studies have reported that uncorrected high hyperopia is an amblyogenic risk factor [8,9]. In our study, 90.2% of children with amblyopia had high hyperopia and hyperopia astigmatism.

Conclusion: If the treatment of refractive errors is delayed in children, it may also cause amblyopia, which may lead to failure in school success and limited choice of many professions in the future. Amblyopia, which can result in permanent vision loss if not treated properly and on time, is an important health problem that can affect all life.

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SS160

THE EFFECT OF STRUCTURED WITHDRAWAL OF DESMOPRESSİN AND MOTIVATIONAL THERAPY ON RELAPSE RATES IN THE MANAGEMENT OF ENURETIC CHILDREN

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Objective: Relapse after cessation of desmopressin is an important problem in treating patients with enuresis. Motivational therapy(MT) is important to increase patient's compliance and/or efficacy of pharmacotherapy in enuresis nocturna. In this study, we evaluated the impact of SWD and MT in a population of patients with monosymptomatic enuresis (ME).

Method: Between January 2018 to June 2019, patients diagnosed with ME referred to our Pediatric Urology Unit, involved in the study. Four different treatment strategies were compared. Group 1 was defined as the direct withdrawal of desmopressin, group 2 was defined as SWD, group 3 was defined as the direct withdrawal of desmopressin+MT, group 4 was defined as SWD+MT.

Results: Three hundred and ninety-four ME patients (258 (65.5%) boys and 136 (34.5%) girls) with an average age of 8.93±2.92 years were included in the study. One hundred and four patients were in group 1, 98 patients in group 2, 99 patients in group 3 and 93 patients in group 4. The four groups were homogeneous, with no significant differences in gender, age and number of wet nights. Achieved full response of 59.8% children in group 1, 61.5% in group 2, 66.0% in group 3 and 65.2% in group 4 at the end of the 3rd month. Relapse rates were 57.9% in group 1, 43.6% in group 2, 43.3% in group 3 and 39.3% in group 4 at the end of the 6th month. About these results, the relapse rates difference was statistically significant between only group 4 and group 1 (p=0.048).

Conclusion: Structured withdrawal of desmopressin(SWD) and MT have been shown to decrease relapse rates and increase treatment response rates. Our study showed the importance of SWD+MT in the management of ME and observed to be associated with decreased relapse rates. We think that further study with a larger population may confirm our hypothesis.

Keywords: Desmopressin, enuresis, motivational therapy, structured withdrawal

SS161

IMMUNOLOGİCAL COURSE OF PATIENTS WİTH 22Q11.2 DELETION

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Purpose: DiGeorge Syndrome is known as 22q11.2 deletion syndrome and characterized by affecting of midline structures because of common embryonic origin. The aim of this study is to convey the immunological evaluation of patients with 22q11.2 deletion in our clinic.

Method: All patients diagnosed with DiGeorge Syndrome in Pediatric Immunology and Allergy Clinic of our hospital between 2013-2019 were included to the study.

Results: Total 18 patients whose diagnosis were verified by genetic analysis of 22q11.2 deletion were examined. Ten of them were female (55.6%). Mean age of patients at diagnosis was 45.9±55.3 months. Six patients had conotruncal cardiac anomaly and 16 patients had congenital cardiac anomaly (88.9%). Nine patients had hypocalcemia (50%) and 4 of them had neonatal hypocalcemia. Palatal anomaly was determined at 27.8% of patients, thymus hypoplasia/agenesis was determined at 4 patient's radiologic imagining or during operation. All patients were partial DiGeorge Syndrome. Thirteen patient's IgG, A and M values were normal according to age. Three patients had low IgG and IgM values, 1 patient had low IgG and IgA values. Twelve of patients (66.7%) had normal distribution of all lymphocyte subtypes at diagnostic examination. CD3+ and CD4+ T cells were low in 5 patients at the time of diagnosis and improvement in follow-up was detected in 2 patients. Immunoglobulin replacement therapy was performed for 5 patients, prophylactic antibiotic was used for 13 patients. Autoimmunity was observed in 3 patients and malignity (pinealoblastoma) was observed in one patient's follow-up. A patient with autoimmune disease died because of sepsis and multiorgan failure when she was 18 years-old.

Conclusion: Follow-up of patients with 22q11.2 deletion needs multidisciplinary approach. Immunological evaluation and proper treatment should be performed for all patients that diagnosed by through other system manifestations.

Keywords: 22q11.2 deletion, Syndromic combined immunodeficiency

SS163

EVALUATION OF PERYPHERAL PERFUSION INDEX IN PRETERM NEONATES WHO WERE TREATED AND FOLLOWED-UP IN NICU

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Aim: It is important to evaluate the well-being of preterm neonates in postnatal transition period, and to detect this early in case of decreased tissue perfusion and oxygenation, in order to intervene before tissue hypoxia develops. Therefore, in this study, we aimed to determine the relationship between non-invasive, easily applicable, continuous measurement that perfusion index, which is related to the general condition of the patient, and the complications that may occur after preterm delivery.

Methods: This study was conducted by preterm babies born between January - April 2019 in T. C. Hatay Mustafa Kemal University Health Application and Research Hospital and hospitalized and treated in NICU were included. Demographic and clinical information of the infants, the mother's data, infants perfusion index, echocardiography and transcranial USG results, vital follow-up, blood gases and treatments were recorded in separate files for each baby beforehand. Clinical Research Ethics Committee Approval was received from Hatay Mustafa Kemal University Tayfur Ata Sökmen Faculty of Medicine.

Results: It was determined that 17 (47.2%) of the babies were born below 34 gestational weeks and 19 (52.8%) were born at 34 weeks or more. BPD in five (13.9%) cases, PDA in eight (22.2%) cases, NEC in two (5.6%) cases, hydrocephalus in one (2.8%) case and three (8.3%) ICH developed. PI mean (minimum-maximum) values for the right hand at 1.19 (0.40-2.50) at 0 h; It was found to be 0.95 (0.36-1.80) at 48th hour and 1.18 (0.30-1.90) at 7th day. The mean values of PI of all babies were different according to the time they were examined and this difference was found to be significant. When the PI values were analyzed according to the gestational week in 12 different time periods, a significant difference was observed between 12th, 24th and 4th day values. When the relationship between PI and PDA or non-PDA babies was examined according to time, it was found that there was a relationship between the 5th day, 6th day and 7th day values. Significant correlation was found between PI values compared with the duration of MV days of the infants at 12th, 24th, 5th and 6th days. When the PI values of the infants receiving and not receiving surfactants were compared, it was found that there was a relationship between 24th hour, 4th day, 5th day and 6th day values.

When the pH and PI values of the blood gases measured at the same time of the babies were compared, it was found that there was a relationship between the 6 hours, 12 hours and 6 days.

Conclusion: According to the difference in PI values of all infants over time was significant, it supports the conclusion that perfusion index can be used as an adjunct to early stage intervention in determining the well-being of preterm infants. However, to understand the role of PI monitoring in newborn infants with serious condition; further studies are needed to determine the reference and threshold values for each gestational week, its usability in critically ill patients and its role in the assessment of treatment.

Keywords: Preterm newborn, perfusion index, premature problems

SS164

THE CHANCES OF SURVIVAL AT İN-UTERO TRANSFERRED, EXTREMELY LOW BIRTH-WEIGHT INFANTS

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Aim: Preterm delivery and extremely low birth weight (ELBW, birth weight<1000 grams) constitute almost half of all neonatal deaths and intrauterine transport of these infants have shown improved outcomes. Unfortunately, incidence of in-utero transfers are far beyond the desired rates. In order to evaluate the morbidity and mortality, we investigated the clinical outcomes of in-utero transferred ELBW infants admitted to two, most referral, level-III neonatal intensive care units (NICUs).

Methods: This retrospective, cohort was conducted in ELBW infants between 2018 and 2019. The study population were categorized into two groups based on birth place (outborn infant - in-utero transfers). Infants were divided into three groups according to the birth weight (< 500 grams, 5700-749 grams and > 750 grams) to determine the survival incidence. Demographic and clinical data was analyzed using SPSS-24 statistical package.

Results: 216 ELBW infants (birth weight 825.26±131.46 grams) were included in the study. In-utero transfer rate was 44.4%. The demographics regarding birth weights have demonstrated significant in-utero transfer rates at 750 - 1000 grams (81.3% vs. %68.3; p=0.020); the incidence of antenatal transfers has declined at birth weights 500–749 grams (15.6% vs. 30.8%). The clinical outcome presented in-utero transfers had favorable outcomes such as, less frequent neonatal resuscitation at birth (%14.6 vs. %25.8; p=0.043), fewer invasive MV support, lower BPD and ROP rates compared to outborn infants (p<0.001, p<0.001, p=0.002). In-utero transfers have also evidenced earlier hospital discharge (39.19±36.19 days, p=0.004). The overall mortality was 28.7%. In-utero transfers have reduced mortality rates compared to postnatal transfers (20.8% vs. 35%; p=0.004). The subgroup survival analysis have evidenced significant patient survival at in-utero transfers weighing 500–750 grams (p<0.001).

Conclusion: The birth place of ELBW infants have favorable outcomes in terms of mortality and morbidity. If delivered in-utero, these infants have better chances of survival and lower morbidities compared to those born at other facilities. More attention is required to motivate the birth delivery of risky infants at the same facility, in which they will receive advanced medical care.

SS165

RİSK FACTORS ASSOCİATED WİTH MORTALİTY İN NEONATES WİTH PERİNATAL ASPHYXİA RECEİVİNG THERAPEUTİC HYPOTHERMİA

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Aim: Perinatal asphyxia remains one of the leading causes of neonatal mortality. The aim of this study was to evaluate the mortality rate and the risk factors associated with mortality in infants with perinatal asphyxia receiving therapeutic hypothermia in our unit.

Methods: The neonates with ≥36 weeks' gestation diagnosed with perinatal asphyxia having moderate-severe encephalopathy and received therapeutic hypothermia in Sanliurfa Training and Research Hospital Neonatal Intensive Care Unit between the period of September 2017 to January 2019 were retrospectively included in the study. Amplitude-integrated electroencephalography (aEEG) records were obtained for all patients during hypothermia and rewarming period. Mortality was evaluated before hospital discharge.

Results: Thirty infants (%16.5) died out of 182 infants included in the study. The median time for death was 6 (1-190) days. The mean birth weight was significantly lower in infants who died (2993±488, 3204±449; p=0.02). The mean cord pH values were significantly lower (p=0.01), initial and 12-hour lactate levels were significantly higher in infants with mortality (p=0.01). In multivariate logistic regression analysis, severely abnormal aEEG (OR: 6.79; %95 CI=1.12-41.24; p=0.04), pulmonary hypertension (OR:69.75; %95 CI=8.35-582.9; p=0.001), increased bleeding tendency (OR:6.75; %95 CI=1.28-35.54; p=0.02) and hyperglycemia (OR:11.28; %95 CI=1.98-64.4; p=0.006) were independent risk factors associated with mortality.

Discussion: In this study we observed that severely abnormal aEEG, pulmonary hypertension, increased bleeding tendency and hyperglycemia were independent risk factors associated with mortality. Identification of asphyxiated infants at risk of mortality would be an important step to develop adjunctive therapies that would improve the outcome and reduce the burden of hypoxic ischemic encephalopathy.

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SS167

EVALUATION OF WHETHER THE DISTANCE BETWEEN THE XIPHOID PROCESS AND THE UMBILICUS IS AN APPROPRIATE LENGTH FOR UMBILICAL VENOUS CATHETER IN PRETERM INFANTS

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Objective: Umbilical venous catheter is a commonly used intervention for total parenteral feeding, antibiotic therapy and investigations especially in very low birth weight infants hospitalized in neonatal intensive care units. Various complications may be seen when the position and length of umbilical venous catheter are not appropriate. Catheter length can be calculated using several methods such as Dunn method, Shukla-Ferrara formula and revised Shukla formula. In this study we evaluated with echocardiography whether the length of umbilical venous catheter inserted by measuring the upper limit of xiphoid process and the lower limit of umbilical ring is appropriate.

Methods: A total of 12 premature infants with a birth weight ≤ 1500 g with umbilical venous catheter inserted in our neonatal intensive care unit between September 1, 2019 and November 30, 2019 were included in the study. Umbilical venous catheter was inserted by measuring the distance between the upper limit of xiphoid process and the lower limit of umbilical ring. Evaluation was performed first by chest X-ray followed by echocardiography. Anatomic localization with the tip of umbilical venous catheter was noted on echocardiography. Infants diagnosed with syndrome, gastrointestinal system anomalies and congenital cardiac disease were excluded from the study.

Results: On chest X-ray, tip of the catheter appeared longitudinal below the diaphragmatic level in all infants. None of the cases was intracardiac at the echocardiographic evaluation. The catheter tip was localized in the cavoatrial junction in four infants, thoracic vena cava inferior in five infants and ductus venosus in three infants.

Conclusion: In our study we found that the length of umbilical venous catheter inserted by measuring the distance between the upper limit of xiphoid process and the lower limit of umbilical ring did not lead to over advancement and this method can be used in the practice. However, further studies with larger series are needed in order to draw more definitive conclusions on this issue.

Keywords: Preterm, umbilical venous catheter, echocardiography

SS168

COMPARISON OF TWO MODES OF INVASIVE VENTILATION FOLLOWING NEONATAL CARDIAC SURGERY

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Introduction: Congenital heart disease (CHD) is a clinical condition associated with high mortality and morbidity. Along with technical innovations in diagnostic and surgical methods, improved outcomes of post-operative care contribute to reduced mortality rates in these patients. No recommendations have been established yet about ventilation strategies in the postoperative follow-up period in CHD. In our study, we aimed to compare volume-targeted ventilation (VTV) with pressure-controlled ventilation (PCV) by comparing the duration of respiratory support and pulmonary complications.

Method: We planned to include patients; who underwent cardiovascular surgery and/or angiography due to CHD in our hospital in the period from February 2018 to February 2019. Patients were randomized with a sealed envelope system and allocated either to the volume guarantee ventilation group (Group 1) or the pressure-controlled ventilation group (Group 2). The duration of mechanical ventilation and noninvasive mechanical ventilation, the duration of oxygen support, the transition time to total enteral nutrition, and the length of hospitalization of the neonates were recorded. It was planned to compare the study groups for the presence of atelectasis, pulmonary bleeding, pneumothorax, and pleural effusion. Extubation failure was defined as the need for reintubation in 72 hours after extubation.

Results: In the study period, a total of 12 patients were included in the volume-guaranteed ventilation group (Group 1) and 19 patients were included in the pressure-controlled ventilation group (Group 2). While extubation failure was detected in 3 patients in Group 1, 9 patients in group 2; ending in reintubation. However, this difference between the two groups was not statistically significant. There were no statistical differences between the groups in terms of mechanical ventilation, noninvasive mechanical ventilation, the duration of oxygen support, and the length of the hospital stay. The intergroup comparison for the presence of atelectasis, pulmonary hemorrhage, pneumothorax, and pleural effusion revealed no significant differences. The median transition day to total enteral nutrition after operation was found to be 8 (5-39) days in Group 2. It was found out that the neonates in Group 2 started enteral nutrition statistically significantly later (p: 0.018).

Conclusions: Pulmonary physiology and hemodynamic changes are complex in neonates undergoing cardiovascular surgery. VTV can be preferred in those patients since it is considered as a more physiological method. However, further large-scale studies are needed to recommend this method as the first option.

SS169

DOES TYPE OF DELİVERY AFFECT FEEDİNG TOLERANCE İN PREMATURE İNFANTS?

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Objective: Factors that influence the development of intestinal flora in the newborn are the mother's vaginal flora and intestinal microbiota, type of delivery, feeding type of the infant and gestational week. In this study, we aimed to evaluate the effect of delivery type on feeding tolerance in very low birth weight infants.

Method: We selected inborn babies with a gestational age less than 32 weeks or birth weight less than 1500 grams admitted at the Neonatal Intensive Care Unit of Zekai Tahir Burak Women's Health, Health Application and Research Center between 2014 and 2016 in this retrospective study. We enrolled 500 infants and they were divided into two groups according to type of delivery; normal spontaneous vaginal delivery (NSVD) and cesarean section (C/S). The demographic characteristics, time to reach full enteral feeding and feeding characteristics of the infants were compared.

Results: We enrolled 500 premature infants in the study; 419 (83.8%) of the patients were born with C/S and 81 (16.2%) with NSVD. The demographic characteristics of the patients are shown in Table 1. Time to reach full enteral feeding was significantly longer in patients born with C/S than NSVD (p=0.001). Frequency of feeding intolerance was significantly higher in babies born with C/S (p=0.044). Exclusively breastfeeding were similar between the two groups (p=0.56). There was no difference between the two groups in terms of duration of hospitalization and mortality (p=0.6 and p=0.696, respectively).

Conclusion: In our study, very low birth weight infants born with C/S were found to have longer time to reach full enteral feeding and had higher rates of feeding intolerance than babies born with NSVD. Nowadays, increasing births with C/S causes the intestinal flora of the baby to be caused by the skin of the mother and from the hospital environment and delays the formation of normal intestinal flora. Since delivery type and feeding type are the most effective factors on the improvement of intestinal flora of infants, breastfeeding and delivery with NSVD should be encouraged if the indication is appropriate.

Keywords: Feeding intolerance, preterm, cesarean section

Table 1. Demographic characteristics of the patients.

	NSVD group (n=81)	C/S group (n= 419)	p
Gestational age, weeks*	27 (26-29)	28 (27-29)	0,001
Birth weight, grams*	1070 (960-1250)	1060 (855-1210)	0,167
Male, n (%)	38 (46,9)	207 (49,4)	0,682
Antenatal steroids, n (%)	52 (64,2)	308 (73,5)	0,088
APGAR at 5 min *	7 (7-8)	8 (7-8)	0,895
Multiple pregnancy, n (%)	5 (6,2)	106 (25,3)	0,000
İnfants with small for gestational age (SGA), n (%)	3 (3,7)	70 (16,7)	0,002
Preeclampsia, n (%)	2 (2,5)	87 (20,8)	0,000

**median, IQR*

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IDENTİFYİNG THE NEEDS OF FAMILY WHOSE BABİES WERE ADMITTED TO NEONATAL INTENSİVE CARE UNITS

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Introduction: Parents, whose babies stay in in the Neonatal Intensive Care Unit (ICU) face the difficulties, both due to the health problems of their child and the physical conditions of the intensive care unit. It is obviously known that family members do not play a part of the treatment and care services provided by the healthcare team in the intensive care unit.
In this study it is aimed to determine the difficulties and needs of parents whose babies are staying in neonatal intensive care and to evaluate the nurses' perception of parental needs. It is thought that this will guide the education and counseling services to be given to families and that kind of studies will increase the awareness of the healthcare team, especially nurses.
Methods: Between the 3rd and 7th days of their babies' admission to intensive care unit, intensive care family requirement scale that contain in itself 53 questions of were applied to the mothers and fathers through face-to-face interviews. These questions are gathered under the titles of information, trust, support, intimacy and comfort. The score range was set at 53-212 (min-max). Meanwhile, a questionnaire form containing the same questions with scale created for families was applied to the nurses.
Results: Mother (n=35) requirement scale total score (min- max) (116-200), father requirement scale total score (122-203) were determined ($p< 0.05$). There was a correlation between the total requirement scale score of mothers and fathers ($p<0.05$). It was detected that the most frequent need for parents "trust and information" when the content of the questionnaire was evaluated. First three needs of mothers and fathers; "I would like to know what has been done to my child, I would like called up by home if there are changes regarding my child's situation and I would like to know the transfer plans". When the mothers and fathers were asked about feelings during staying their babies' intensive care, they were determined as "confidence and relaxation" in 51.6% of the mothers and 42.9% of the fathers. "Concern and fear" were detected in 38.7% of mothers and 42.9% of fathers . It was established that 90% of the families needed "information and trust" when the nurse questionnaire also has evaluated. However, the dispersion did not correlate with parents. According to nurses the top 3 things that families need I would like to know the outcomes that may become of about my child's situation (75.6%), I want my questions answered correctly (70.7%), I want to feel that there is hope (68.3%).
Discussion: Leske et al. revealed that individuals who has a family member that stay in the intensive care unit have requirements such as trust, support, closeness and comfort. Sönmez et al. were stated that families had the most information requirements in their study .In the study of Küçükoğlu et al., the primary need of parents whose babies are staying in the neonatal intensive care unit is stated as proximity. In our study, it was determined that families needed information and trust.
Conclusion: In general, being in process of intensive care, it can be said that the need for trust, knowledge and closeness is the primary concern of patient relatives. Besides that, it can be said that the support and comfort requirements associated with their personal needs remain more in the background. Accordingly, it is important for healthcare professionals to be sensitive to the needs of patient's relatives and to meet these needs regularly.

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AMBULATORY 24-HOUR BLOOD PRESSURE MONITORIZATION IN PATIENTS WITH CONGENITAL ADRENAL HYPERPLASIA DUE TO CLASSİC AND NON-CLASSİC 21 HYDROXYLASE DEFİCİENCY

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Congenital adrenal hyperplasia (CAH) due to 21-hydroxylase deficiency is characterized by cortisol and/or mineralocorticoid deficiency. Unlike other CAH types, increased blood pressure is not an expected typical feature of 21 hydroxylase deficiency. However, in patients with 21 hydroxylase deficiency a high hypertension frequency has been reported in the literature. The aim of this study is to evaluate the prevalence of hypertension in children and adolescents with classic and non-classic 21 hydroxylase deficiency and factors affecting blood pressure.

Twenty-one patients with 21 hydroxylase deficiency (Female/Male: 17/4) were enrolled in the study. Demographic data, family history and laboratory findings are all obtained from hospital records. Ambulatory 24-hour blood pressure monitorization was performed on all patients. Patients were categorized based on clinical and laboratory variables.

Thirteen patients were classified as classic, with 8 as non-classic CAH. Systolic and diastolic hypertension was identified in 38.1% and 14.3% of the study group, respectively. Nighttime systolic blood pressure load was found to be significantly elevated in obese patients when compared to non-obese counterparts (p=0.036). In the tight metabolic control group (8 patients, 53.3%) systolic hypertension frequency was found to higher than the poor metabolic control group; in which all patients had normal blood pressure (p=0.046). No correlation could be identified in terms of equivalent hydrocortisone and fludrocortisone dosage, insulin, HOMA-ID and ABPM profiles.

To conclude, this study showed that classic and non-classic 21 hydroxylase deficiency patients had increased 24-hour blood pressure profiles and an abnormal nocturnal drop. The risk of hypertension should be kept in mind when evaluating 21 hydroxylase deficiency patients. Further studies are needed to determine the underlying factors causing hypertension in these patients.