



Immune Thrombocytopenia in Childhood: Before and During the COVID-19 Pandemic

Çocukluk Çağında İmmün Trombositopeni: COVID-19 Pandemisi Öncesi ve Sırasında

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To the Editor,

The coronavirus disease-2019 (COVID-19) pandemic has affected many different disease groups and patients in different ways, as is the case in pediatric hematology (1-3). In our clinic, we retrospectively analyzed the data of children who were admitted to our clinic between March 2019 and March 2021 with the diagnosis of immune thrombocytopenia (ITP). Outbreak of COVID-19 pandemic in Turkey was legally accepted in March 2020. We aimed to evaluate the possible changes that can be seen in the laboratory findings and disease course of ITP patients during the period of the pandemic.

We divided our patients into two subgroups as those admitted to our clinic before and during the first year of the pandemic. The COVID-19 polymerase chain reaction (PCR) tests were performed in all patients, and those

with negative PCR test results were admitted to our clinic during the pandemic. There were 25 ITP patients in the year before the pandemic and 14 during the pandemic period. The number of cases had decreased by almost 45 percent. When we compared the mean and median platelet counts of the pre-and post-pandemic period; it was observed that mean and median platelet counts were lower during the pandemic period without any statistically significant difference [mean: $40.880 \pm 38.020/\text{mm}^3$ and $20.500 \pm 27.556/\text{mm}^3$, median: 20.000 (3.000-98.000)/ mm^3 and 10.500 (5.000-39.000)/ mm^3 , respectively, $p=0.063$]. Remarkably, 40% (n=10) of 25 cases with acute ITP admitted in the pre-pandemic period developed persistent ITP. However, development of persistent ITP during the pandemic period was significantly less frequently seen ie. only 8% (n=1) of 14 acute ITP admissions ($p=0.024$).

In the etiopathogenesis of childhood ITP, autoimmunity induced with viral infections is a very well-known entity⁽⁴⁾. We may assume that the incidence of various viral infections decreased due to the use of masks, implementation of social distancing, and better hygiene conditions during the pandemic, and therefore lesser number of ITP cases were admitted to the clinics. On the other hand, there were ITP patients diagnosed incidentally before the pandemic period, but during the pandemic period, a significant decrease was observed in the rates of admission to the outpatient clinics and pediatric emergency services of children with various complaints, causing a decline in incidentally diagnosed ITP patients. During the pandemic, patients with ITP had lower platelet counts at diagnosis, which may be due to underlying weakened immune mechanisms or resistance to admission to a hospital due to fear of contracting COVID-19.

In the pandemic period, 92% of patients were diagnosed with acute ITP, and only one of them had persistent ITP. Although our patients had negative COVID-19 PCR test results, since COVID-19 disease can be asymptomatic in children, we don't know whether they have recovered from the disease recently or not⁽⁵⁾. Newly diagnosed ITPs due to COVID-19 disease and vaccination have been reported in the literature^(6,7).

In conclusion; in the first period of the pandemic, a decrease was observed in the number of the newly diagnosed ITPs and most cases experienced acute course of the disease. However, we have to admit that one cannot draw definite conclusions based on the limited number of cases in our study. Large-scale studies are needed to evaluate the changes in laboratory findings and the course of ITP developed due to COVID-19 disease and during the pandemic.

Ethics

Informed Consent: This article does not contain any studies with human participants or animals performed by any of the authors. The informed consent was not obtained.

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Authorship Contributions

Concept: Ş.A., Ö.T., Ş.Y., H.Ö., Design: Ş.A., Ö.T., Ş.Y., H.Ö., Data Collection or Processing: Ş.A., Ö.T., Ş.Y., H.Ö., Analysis or Interpretation: Ş.A., Ö.T., Ş.Y., H.Ö., Literature Search: Ş.A., Ö.T., Ş.Y., H.Ö., Writing: Ş.A., Ö.T., Ş.Y., H.Ö.

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