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Letter to the Editor

Kawasaki Disease in a 4-Year-Old Male Child with Brucellosis

Brusellozlu 4 Yaşında Erkek Çocukta Kawasaki Hastalığı

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Dear Editor,

Kawasaki disease (KD) is an acute vasculitis of childhood that leads to the development of coronary artery aneurysms in untreated cases. It is the leading cause of acquired heart disease in children in developed countries. Although various infectious agents, including bacteria, viruses, and superantigens, have been proposed as potential triggers for KD, its etiology is still unknown[(1)]. Here, we present a patient who had the diagnostic criteria of KD during concomitant Brucella infection.

A 4-year-old boy was admitted to our hospital with malaise and persistent fever, which had started 15 days prior. During this period, he developed an erythematous macular rash, eye redness, and red cracked lips. He had been treated with antibiotics and paracetamol before admission, but his fever and fatigue persisted. Upon readmission, he presented with swelling in his hands and feet. Some remarkable laboratory test results were as indicated: leukocyte: 14,040/mm³, neutrophil: 9,330/mm³, lymphocyte: 2,940/mm³, platelets: 853,000/mm³, hemoglobin: 11.2 g/dL, C-reactive protein: 1.9 mg/dL, erythrocyte sedimentation rate: 57 mm/h. While levels of transaminases, albumin, sodium, and urinary analytes were within their normal limits. He was evaluated by echocardiography and no coronary artery aneurysm, valvular regurgitation, and pericardial effusion was observed. Based on these findings, he was diagnosed with KD. The patient was promptly treated with intravenous immunoglobulin at the dosage of 2 g/kg for one day plus acetylsalicylic acid at the daily doses of 90 mg/kg for 3 days which was continued at daily doses of 5 mg/kg.

It was learned from his medical history that he consumed unpasteurized dairy products and brucellosis was endemic in the region. Therefore, immunohistochemical tests to reveal (if any) Rose Bengal, immunoglobulin G and -Brucella immunoglobulin M (IgM) antibodies were conducted. Both Rose Bengal and Brucella IgM-positivities were detected indicating a concurrent Brucella infection. The patient received rifampicin and sulfamethoxazole-trimethoprim combination for 6 weeks. He recovered completely

during follow-up based on the evaluation of clinical and laboratory parameters.

While rare, concurrent bacterial and viral infections with KD have been reported in the literature[2,3]. A single-center retrospective study indicated that the presence of infection does not alter the clinical phenotype or coronary outcomes of KD[3]. There has been at least one reported case of brucellosis occurring alongside KD similar to our case[2]. Brucellosis, caused by Gram-negative bacteria of the genus Brucella, is a zoonotic infection transmitted to humans primarily through contact with infected animals or consumption of contaminated food products. It typically presents with nonspecific symptoms such as fever, malaise, and arthralgia, and requires appropriate antibiotherapy[4].

This case emphasizes that in areas where brucellosis is endemic, clinicians should be aware that KD and brucellosis may occur concurrently.

Ethics

Informed Consent: Retrospective study.

Author Contributions

Surgical and Medical Practices: E.K., A.D., Concept: E.K., A.D., Design: E.K., Data Collection and Processing: E.K., A.D., Analysis and Interpretation: E.K., Literature Search: E.K., Writing: E.K.

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