Coexistence of Rheumatoid Arthritis and Sickle Cell Anemia; Case Report

Romatoid Artrit ve Orak Hücreli Anemi Birlikteliği; Olgu Sunumu

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Öz
Romatoid artrit (RA) primer olarak sinovyal eklemleri etkileyen, kronik, sistemik, otoimmün bir hastalıktır. Orak hücreli anemi, hemoglobin yapısında bozuklukla ilişkili vazo-okluziv ataklarla seyreden kalıtsal, kronik bir hastalıktır. Romatoid artrit ve orak hücreli anemi birlikteliği literatürde nadir olarak bildirilmektedir. Bu vaka sunumunda 26 yaşında orak hücreli anemi tanısı olan bilateral el artrit bulgularıyla polikliniğimize başvuran kadın hastanın literatür eşliğinde tanı ve tedavi planı sunulacaktır.

Anahtar Kelimeler: Romatoid artrit, Orak hücreli anemi, Avasküler nekroz

Abstract
Rheumatoid arthritis (RA) is a chronic, systemic, autoimmune disease that primarily affects the synovial joints. Sickle cell anemia is a chronic inherited disease with vaso-occlusive attacks associated with hemoglobin structure defect. The coexistence of rheumatoid arthritis and sickle cell anemia is rarely reported in the literature. In this case report, the diagnosis and treatment plan of a 26-year-old female patient who was diagnosed with sickle cell anemia and applied to our outpatient clinic with bilateral hand arthritis findings will be presented in the light of the literature.

Keywords: Rheumatoid arthritis, Sickle cell anemia, Avascular necrosis

Introduction

Rheumatoid arthritis (RA) is a chronic, systemic, autoimmune disease that primarily affects the synovial joints (1). Sickle cell anemia is a chronic disease with inherited vaso-occlusive attacks associated with hemoglobin structure defect (2). The coexistence of rheumatoid arthritis and sickle cell anemia is very rarely reported in the literature (3). In this case report, a 26-year-old female patient who was diagnosed with sickle cell anemia and presented to our outpatient clinic with bilateral hand arthritis findings will be presented.

Case

A 26-year-old female patient was consulted to our outpatient clinic with the complaints of swelling and pain in the bilateral 2nd metacarpophalangeal (MCP) joints. The patient previously stated that she had swelling and pain in her joints from time to time. She stated that her morning stiffness has been more than half an hour for the last 3 months. The patient had a known diagnosis of sickle cell anemia. In the examination, warmness, swelling and redness were detected in bilateral 2nd MCPs. Hand MRI was requested to differentiate arthritis and avascular necrosis (AVN) due to significant erosive changes in bilateral 2. MCPs in the direct hand X-ray (Figure 1) of the patient. Besides, rheumatological markers were requested. Contrast material could not be used because stasis was detected in the renal scintigraphy of the patient. The patient's CRP is 4 mg/L(N:0-5), erythrocyte sedimentation rate:9 mm/hour, RF 16.7 IU/ml (0-14), anti-CCP>200 RU/ml (0-4.99). It was evaluated as RA according to 2010 ACR-EULAR rheumatoid arthritis diagnostic criteria (2 small joints involvement, anti-CCP high titer positivity, symptoms lasting more than 6 weeks). In MRI (Figure 2), synovitis, bone marrow edema and erosions were detected in bilateral 2nd MCPs. When evaluated together with the clinic, joint involvement of RA was considered. Because of the previously detected bilateral femoral head AVN and osteonecrotic changes in the hand joints, the case was consulted with an orthopedics and traumatology specialist. Orthopedics and traumatology specialist recommended “core decompression surgery” for femoral head AVN. The patient did not agree the operation. Hyperbaric Oxygen Therapy (HBOT) was recommended to the patient who was referred to the underwater medicine and hyperbaric medicine outpatient clinic. After having an approval from hematology, the patient commenced 1*200 mg/day hydroxychloroquine and also 1*7.5 mg/day prednisolone for RA treatment. Follow-up care and treatment plan of the patient continue in a multidisciplinary manner by our rheumatology, hematology, underwater medicine and hyperbaric medicine clinics.

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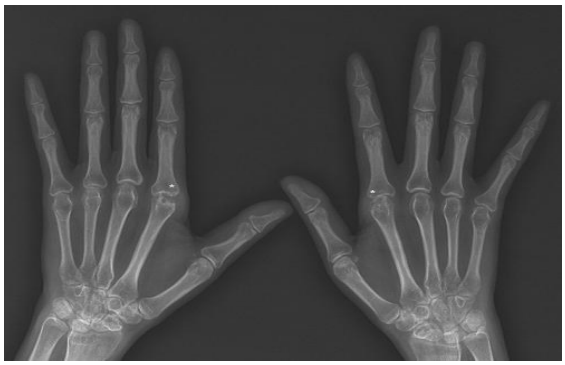

Figure 1. Erosion in bilateral 2.MCP

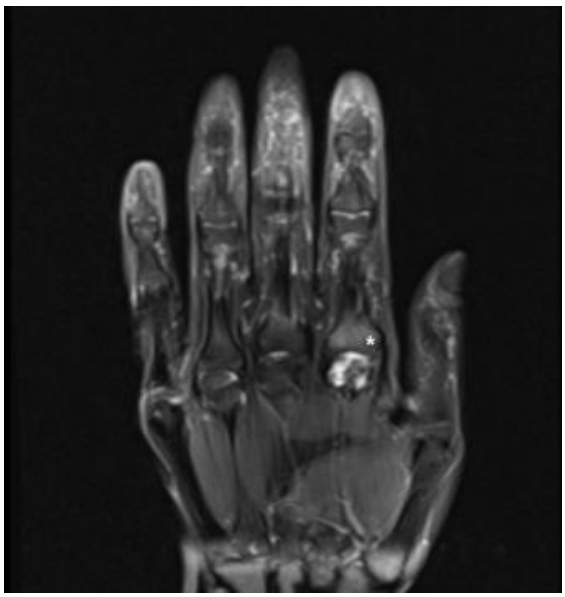

Figure 2. Bone marrow edema, synovitis and erosion in the second MCP

Discussion

It has been reported in the literature that rheumatoid arthritis and sickle cell anemia are rare (3). In particular, there are articles in the nature of case reports (4). No dmard therapy has been shown to be superior than others (5). The patient was consulted to the hematology department, and hydroxychloroquine and steroids were initiated with consensus. The patient's symptoms regressed significantly after the treatment.

When the literature is examined, it has been reported that the coexistence of sickle cell anemia and rheumatoid arthritis causes more erosion and periarticular osteopenia. This type of patient tends to be younger and more seropositive compared to the RA population without sickle cell anemia (4-5). Considering that the coexistence of sickle cell anemia and rheumatoid arthritis is rare and has a worse prognosis, it should be kept in mind that early diagnosis and treatment are crucial. The treatment of rheumatologic disease should be planned considering the accompanying vaso-occlusive crisis, hemolysis, asplenia, and adverse reactions. Multidisciplinary approach should remain at the forefront in follow-up and treatment steps.

Written consent: A written patient consent certificate was taken from the patient that her medical data may be published on 31.03.2022.

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