A child with Behçet's disease presenting with a spectrum of inflammatory manifestations including epididymoorchitis

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Behçet's disease is a systemic vasculitis affecting arterioles and venules and is characterized by recurrent oral ulcers, genital ulcers and ocular inflammation. It can involve any organ but joints, skin, central nervous system and gastrointestinal tract are the most common sites.

Here we report an 11-year-old Behçet's disease patient presenting with attacks of myositis accompanied by epididymoorchitis and periodic fever attacks as well as a separate attack of thrombophlebitis.

Key words: Behçet's disease, epididymoorchitis, myositis, thrombophlebitis.

Behçet's disease (BD) is a systemic vasculitis characterized by presentation with the involvement of joints, central nervous system and gastrointestinal system as well as recurrent oral ulcerations, genital ulcerations and ocular involvement. BD may affect arteries and veins of all sizes in any system[1]. Although the etiology of BD is still unknown, the exaggerated response triggered by infections in genetically susceptible individuals is thought to be responsible for the pathogenesis of the disease.

Behçet's disease occurs rarely in children[2]. The clinical process of the disease in children is similar to that in adults but periodic fever attacks can be the prominent symptom[1]. We report an 11-year-old BD patient presenting with attacks of myositis accompanied by epididymoorchitis and periodic fever attacks as well as a separate attack of thrombophlebitis.

Case Report

An 11-year-old male patient was admitted to our Children's Hospital with the complaints of high fever (>39°C) and swelling and sensitivity in the left arm and leg. He refused to walk due to the pain. In his medical history, attacks of fever and similar symptoms of the extremity occurred twice: the first resulted in hospitalization and the second resolved spontaneously. The patient had a history of recurrent aphthous oral ulcerations (Fig. 1) that occurred three-to-four times per year accompanied by high fever, but he had never experienced genital ulcers. Two painful and heat-spot lesions of erythema nodosum (4x6 and 2x3 cm) on the left leg and a similar lesion of 2x2 cm on the right forearm were noticed during the physical examination of the patient (Fig. 2). Hemoglobin, leukocyte count and thrombocyte count were 12.8 g/dl, 12,000/mm^3 and 316,000/mm^3, respectively. C-reactive protein level and erythrocyte

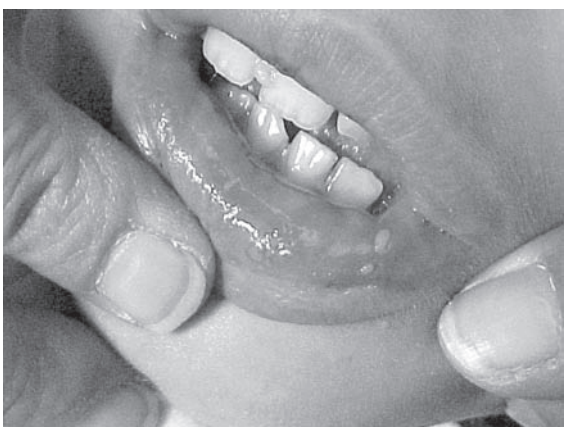

Fig. 1. Multiple aphthous lesions in the mouth.

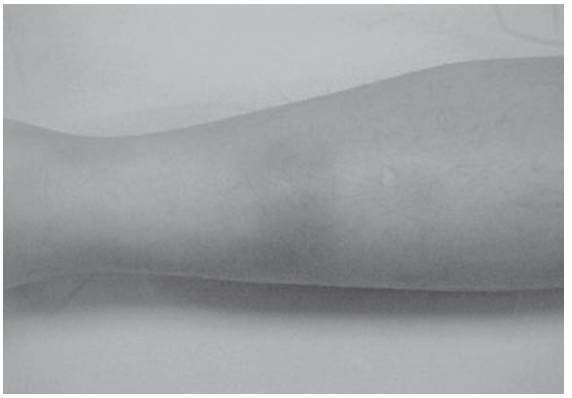

Fig. 2. Erythema nodosum on the left leg.

sedimentation rate were 7.4 mg/dl (normal range: 0-0.5) and 62 mm/hour, respectively. The laboratory examinations of antinuclear antibodies (ANA), rheumatoid factor (RF) and anti dsDNA performed for the diagnosis of autoimmune diseases were all negative. At his further laboratory examination, he was found to be heterozygous (M680I/-) for familial Mediterranean fever (FMF). HLAB5 was not present in our patient.

Intravenous sulbactam-ampicillin with a non-steroidal anti-inflammatory agent was selected as initial therapy and the patient was hospitalized for further evaluation and treatment. Pathergy test of the patient was positive. In his follow-up, epididymoorchitis developed on the third day of his admission to hospital (Fig. 3). No uveitis was diagnosed on ophthalmological examination. Sulbactam-ampicillin therapy was discontinued on the fourth day. The patient's high fever (>38.5°C) present throughout the first three days of his hospitalization resolved spontaneously after the initiation of the therapy with colchicine and prednisone (1 mg/kg/day). Both the extremity complaints and epididymoorchitis responded to this treatment. The patient was discharged with prednisone and colchicine treatment. Steroid was discontinued after a month by tapering while colchicine therapy continued. Two months after discharge the patient presented with acute calf pain. Doppler ultrasonography confirmed a thrombophlebitis. He was started on low-dose heparin along with prednisone. He was discharged with coumadin and low-dose prednisone and was in excellent condition at his first-month visit.

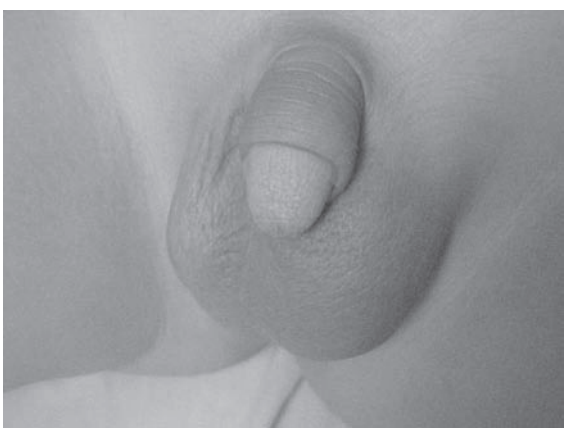

Fig. 3. Bilateral epididymoorchitis.

Discussion

Behçet's disease characterized by the triad of recurrent aphthous stomatitis, genital ulcerations and recurrent uveitis was first described by Dr. Hulusi Behçet in 1937[3]. The cases of BD in children were published as series. The high frequency of erythema nodosum in Turkish patients was noticed in an international publication[4]. As there is no specific test for the definite diagnosis of BD, the diagnosis of this disease depends on the clinical criteria. Although several classifications are present, the criteria of the International Study Group have been widely accepted since 1990[5]. According to these criteria, the presence of oral ulcerations in addition to the presence of two criteria from among recurrent genital ulcerations, ocular lesions, skin lesions or positive pathergy test is sufficient for diagnosis of BD.

In our case, the presence of positive pathergy test and disseminated erythema nodosum lesions along with oral ulcers confirmed the diagnosis of BD. This patient has certain interesting features, such as the presence of myositis and epididymoorchitis, as well as the classical symptoms. The dramatic response of the patient's epididymoorchitis to the colchicine and steroid therapy suggests a probable relationship between BD and an auto-inflammatory pathology. Although epididymoorchitis (either recurrent or non-recurrent) accompanying BD in adult patients is present in the literature[6-8], childhood cases are very rare.

A peculiar feature of BD is its course characterized by exacerbations and remissions. In fact, there is a recent trend to classify this disease as an auto-inflammatory syndrome[9]. This patient also

displayed a course of recurring inflammation. Initially he had attacks of fever, nodosa, then orchitis and finally thrombophlebitis. He enjoyed good health in between while only on colchicine treatment in the latter period. The clinical features also present similarities with the other monogenic auto-inflammatory syndromes such as fever, painful skin findings and orchitis. FMF should also be considered in the differential diagnosis of such patients. In fact, some authors highlight the association of FMF and BD, whereas others suggest that this is simply because of the increased frequency of both of these diseases in the area. However, our patient fulfilled the criteria for BD and the prominent feature during his attacks was the painful erythema nodosum instead of serositis, which is characteristic of FMF. He did not describe the characteristic serositis attacks; however, these features will also be evaluated in his follow-up. Colchicine is an effective preventive therapy for both of these clinical settings. On the other hand, the M680I mutation in this patient may have worsened his inflammatory disease, as suggested in previous reviews[10].

In conclusion, the presence of oral-genital ulcerations should be investigated in case of epididymoorchitis as well as other inflammatory manifestations with an unknown etiology in order to make a correct diagnosis.

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