The European Research Journal 2019;5(1):230-232 LETTER TO THE EDITOR

Bilateral sacroiliitis and left hip arthritis secondary to isotretinoin treatment

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DOI: 10.18621/eurj.421976

Received: May 8, 2018; Accepted: June 11, 2018; Published Online: June 15, 2018

Dear Editor,

Acne vulgaris is a chronic inflammatory disease affecting the pilosebaceous unit in the skin [1]. Isotretinoin is a synthetic vitamin A derivative using in severe cystic acne treatment. Pain and arthralgia are observed in 20% of patients treated with isotretinoin [2]; however sacroiliitis is rare and hip arthritis is even more rare. There was no article in the literature about a patient with sacroiliitis and hip arthritis together.

A 30-year-old male patient who was suffering from severe pain on his left hip and leg for two days admitted to our clinic. His pain was very intense in the evening and the Visual analog scale (VAS) pain score was 8. He experienced morning stiffness for two days and about an hour on his left lower extremity. The patient had no history of inflammatory low back pain, skin lesion, bowel problem or infection. No pathology was found in rheumatologic examination. Family history was normal, however the patient was taking isotretinoin 20 mg/day for acne vulgaris about two months. The patient resorted to the brain surgery department before our clinic, the lumbar magnetic resonance imaging (MRI) was taken and no pathology was detected. The inspection of left leg and other body parts were normal but there was a pronounced skin dryness around the mouth periphery and face. There was mild sensitivity with palpation on left hip but the movements were limited and so painful. Flexion, abduction, and external rotation (FABER), flexion, adduction, and internal rotation (FADIR), sacroiliac compression, Mennel and Gaenslen tests were bilateral positive but more painful on left side. Lumbar range of motion was normal and there was no neurological deficit. Erythrocyte sedimentation rate (ESR) (33 mm/hr) and C-reactive protein (CRP) (3.84 mg/L) values were higher in the laboratory tests. Complete blood count, routine biochemical tests and HLA-B27 were negative. Bilateral bone narrow edema on iliac sides of sacroiliac joints and increased joint fluid on left hip was found on MRI (Figures 1a and 2a). As a result of all tests, the patient was diagnosed as bilateral sacroiliitis and left hip arthritis due to isotretinoin. The isotretinoin was ceased and nimesulide 2×100 mg, methylprednisolone 1×16 mg and lansoprazole 1×30 mg was started. A dramatic clinical response was obtained. A significant decrease was observed in the laboratory parameters on the seventh day (CRP: 0.06 mg/L, ESR: 5 mm/hr) and the VAS score was 3. Methylprednisolone was reduced and ceased. A repeat MRI performed five months later showed no evidence of left hip arthritis and sacroiliitis (Figures 1b and 2b) and the examination was completely normal.

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e-ISSN: 2149-3189

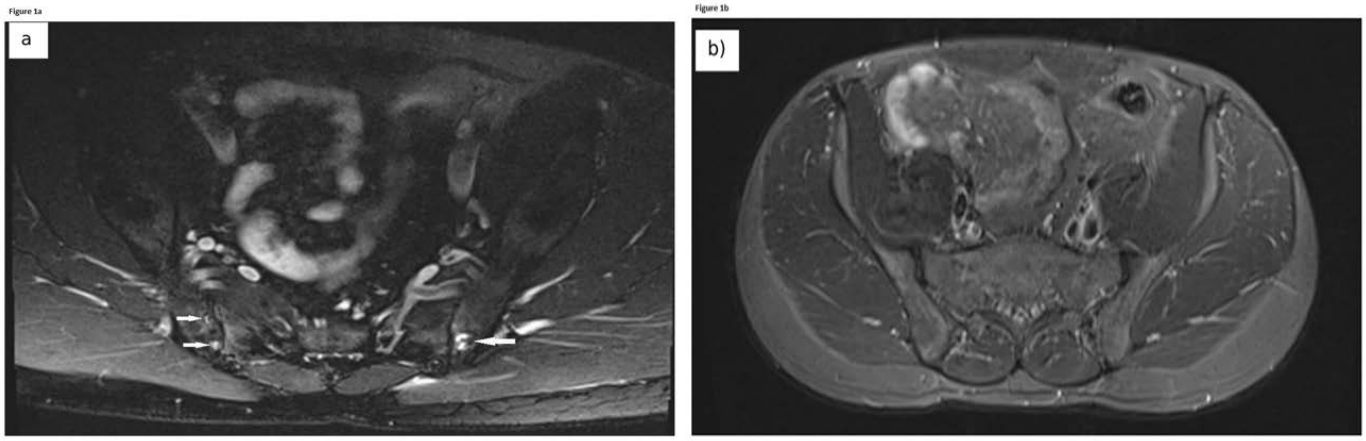

Figure 1. (a) Bilateral bone narrow edema on iliac sides of sacroiliac joints (before treatment), (b) Improved bone narrow edema on sacroiliac joints (five months after treatment).

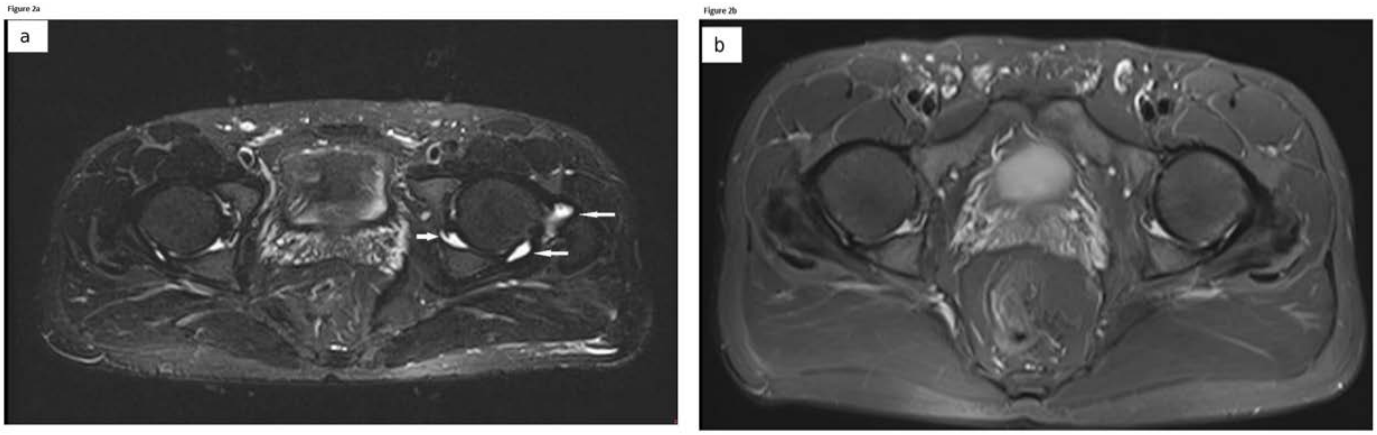

Figure 2. (a) Increased synovial fluid on left hip joint (before treatment), (b) Improved synovial fluid on left hip joint (five months after treatment).

Acne vulgaris is a common skin disease and it does not depend on gender, ethnicity and skin color [1]. Isotretinoin is a synthetic vitamin A derivative using in severe cystic acne treatment. There are many side effects as well as musculoskeletal side effects such as pain, arthritis, arthralgia, myalgia and soft tissue calcification [3]. A small number of cases of sacroiliitis occurring in association with isotretinoin use have been described [3-5]. Isotretinoin-induced peripheral arthritis has also been reported [6-9] and only one of these cases had hip arthritis [8]. A case of peripheral arthritis (bilateral wrist and metacarpophalangial joints) and subsequent sacroiliitis (unilateral) reported in one study [9]. Unlike these studies, our patient had bilateral sacroiliitis and left hip arthritis together and no similar case has been seen in the literature. The fact that the patient is a young man and the appearance of sacroiliitis in the MR suggests us primarily ankylosing spondylitis (AS). However, the absence of inflammatory low back pain, HLA B27 negative, rapid onset pain, dramatic response to steroids, and complete resolution of the clinic removed us from AS. In conclusion, we think that our case report will contribute to the literature because of the rarity of the case. Physicians should be aware of this rare cause of acute arthritis and sacroiliitis.

Authorship declaration

All authors listed meet the authorship criteria

according to the latest guidelines of the International Committee of Medical Journal Editors, and all authors are in agreement with the manuscript.

Conflict of interest

The authors declared that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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