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Adalimumab-induced lupus in a patient with hidradenitis suppurativa

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Introduction

- A known side effect of anti-tumor necrosis factor (TNF) agents is the development of autoimmunity with the formation of antinuclear antibodies and/or anti-dsDNA antibodies
- Anti-TNF-induced lupus (ATIL) typically presents as arthralgias and arthritis, hematological abnormalities, and skin involvement similar to SLE
- Over 100 cases of ATIL have been reported in the literature with 22 being due to adalimumab-- none of those patients were being treated for hidradenitis suppurativa (HS)
- Ustekinumab may be considered as an alternate treatment for patients with HS especially in patients that develop ATIL

Clinical Presentation

- 21-year-old Caucasian male with a 2-year history of HS involving his buttocks, axilla, and groin, presented with a 5-month history of joint pain and stiffness of the shoulder, wrist, elbow, ankle, and foot
- He was otherwise a healthy non-smoker with a BMI of 25.38 and had no reported history of joint pain
- A local dermatologist had started the patient on adalimumab for his HS 5 months prior to his presentation to our clinic
- After only one month on adalimumab, he developed severe joint pain resulting in decreased activities of daily living and quality of life
- Symptoms included occasional morning stiffness and swelling of the feet which worsened with overuse and improved with rest

Diagnosis and Management

- Due to concern for ATIL, the dermatologist instructed discontinuation of adalimumab
- Patient continued to present with arthralgias and was started on hydroxychloroquine and prednisone with no improvement in symptoms
- Further work-up revealed a positive ANA (1:640) with a homogenous pattern, a low titer positive anti-histone antibody, and a positive HLA-B27; rheumatoid factor (RF), cyclic citrullinated peptide (CCP), inflammatory markers, antineutrophil cytoplasmic antibodies (ANCA), SSA/SSB, urinalysis, and quantiferon gold were all negative
- X-rays of the sacroiliac joints, shoulders, and sternum were unremarkable (Figure 1)
- Due to the continued symptoms and to avoid other anti-TNF agents, ustekinumab was initiated for the treatment of HS and joint pain
- Within one month of starting ustekinumab, the patient had significant improvement in symptoms and was able to resume his work and school activities.

Images

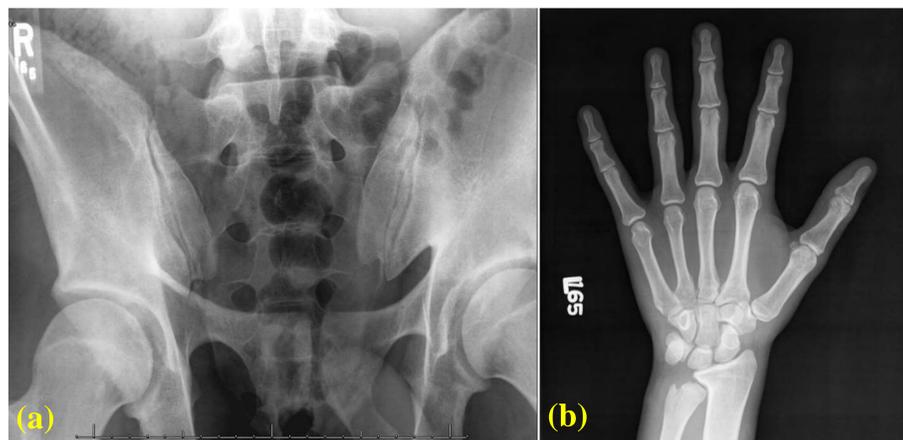


Figure 1. (a) X-ray of the sacroiliac joints and (b) hand showing no acute osseous abnormality or significant arthritic changes

Discussion

- Adalimumab is the only FDA approved medication for the treatment of HS
- The most common side effects of all anti-TNF agents are injection site reactions and the increased risk of infections including reactivation of latent tuberculosis
- 17-57% of patients with ATIL develop anti-dsDNA with other autoantibodies such as anti-histone
- Onset of ATIL can range from 3 months to one year after initial drug exposure with symptoms typically resolving 1-6 months after discontinuation of the drug
- Diagnosis of ATIL is made by clinical presentation and exclusion of other autoimmune processes
- Mainstay of treatment is withdrawal of the drug-- some patients require treatment with systemic corticosteroids
- Ustekinumab can be considered as an alternate treatment for patients with HS who develop ATIL

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