



REACTIVE ARTHRITIS- A CASE REPORT

Dermatology

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ABSTRACT

Reactive arthritis comes under the group of spondyloarthritides; and is considered to be a reactive inflammatory response affecting multiple organ systems following an episode of enteritis or urethritis. Infection with Shigella, Yersinia, Ureaplasma or chlamydia have been described as definitive triggers in a susceptible individual. We report a case of reactive arthritis in a patient following an episode of enteritis.

KEYWORDS

Reactive arthritis, spondyloarthropathy, HLA B27

INTRODUCTION:

The classical triad of reactive arthritis consisting of non-infectious urethritis, arthritis and conjunctivitis was first described by Hans Reiter in 1916¹. All the features described in the classical triad are however, seldom present. It is a seronegative spondyloarthropathy² that occurs 1-4 weeks following an episode of enteritis or urethritis³. An interplay of triggering and host factors exists in the causation of the disease. The inflammatory arthritis affects the axial skeleton in the form of sacroiliitis or the large weight bearing joints of the extremities classically in an asymmetric manner. Associated enthesitis of the achilles tendon and plantar fascia are not uncommon. The ocular manifestations typically occur during the acute phase of the disease and more commonly includes an episode of conjunctivitis or anterior uveitis. The cutaneous manifestations include characteristic psoriasiform lesions of the acral skin called keratoderma blennorrhagicum and circinate balanitis in males.

CASE REPORT:

A 52 year old male patient was referred from the orthopedics department for the presence of scaly lesions over his knees, legs and elbows. The patient was admitted for complaints of back pain and arthralgia of the shoulder joints associated with fever. Patient gave a history of abdominal pain and diarrhea lasting for 3 days, one month prior to the onset of his current symptoms. He had history of mild fever 1 week ago associated with malaise and arthralgia. He had pain in bilateral shoulders and hip for the past 2 weeks which had slowly subsided. He gave history of low back pain which was aggravated on bending over. He developed scaly lesions over his knees and elbows within the past 10 days. He gave no history of redness or irritation of his eyes nor any visual disturbances. There was no history of burning micturition or penile discharge. On examination patient was afebrile and slightly pale. There were multiple well circumscribed verrucous, scaly lesions over his knees, anterior aspect of bilateral legs and elbows. The skin over his palms and soles were thickened. Genital examination revealed the presence of scaly plaque over his glans penis. Conjunctiva appeared normal. Systemic examination showed no significant abnormalities. A punch biopsy was taken from a lesion over his left leg to rule out the possibility of reactive arthritis. Histopathological study revealed a psoriasiform dermatitis with the presence of spongiform pustules consisting of neutrophils, within the epidermis. The features were compatible with Reactive arthritis. A VDRL and HIV serology was ordered for the patient. He was being managed with NSAIDS. Unfortunately the patient was lost to follow up.

DISCUSSION:

Reactive arthritis can be divided into post enteric and post urethritic. The post urethritic form appears to be more common in men whereas the post enteric type shows no sex predilection. Established triggering

infections include those caused by Shigella flexneri, Salmonella, Campylobacter, Yersinia, Ureaplasma, Chlamydia trachomatis etc with Mycobacterium tuberculosis also being described as a cause. The host inflammatory response is predominantly of the Th2 type⁴ which is evident by the elevation of cytokines like IL 10 in comparison to TNF alpha. HLA B27 clearly plays a role in the pathogenesis of the disease, as is suggested by many studies⁵. The symptoms of the disease usually start within 4 weeks of the initial infection which may have gone unnoticed. The condition is often underdiagnosed due to the heavy reliance on the classic triad of symptoms which is usually absent in most cases. The acute joint symptoms include an asymmetric oligoarthritis affecting the peripheral weight bearing joints with axial skeleton involvement commonly of the sacroiliac joint and lumbar spine⁶. The presence of dactylitis is very specific for spondyloarthropathy. Enthesitis of the Achilles tendon or plantar fascia is a hallmark feature if present. Mucocutaneous involvement includes a pustular or plaque like rash over the palms and soles which can very closely resemble pustular psoriasis⁷. Gross hyperkeratotic lesions with crusting can occur as in rupoid psoriasis. Nail and scalp involvement is not uncommon. Painless oral ulcers can rarely occur which is usually missed by the patient. Few patients complain of sterile dysuria. Scaly annular plaques and shallow ulcers may occur over the shaft of the penis and the glans (circinate balanitis) in men and over the vulva (circinate vulvitis) in women. Ocular involvement is characterized by the presence of conjunctivitis in the acute phase and anterior uveitis which may follow a chronic and relapsing course. There may be involvement of the heart rarely in the form of pericarditis⁸ or valvular pathologies. History and clinical features are usually relied upon to make a diagnosis. Stool, blood, synovial fluid, urine cultures can be obtained to find out the causative infection, as can specific serological analysis or PCR, but this becomes highly impractical in most clinical settings. Testing for HLA B27 positivity is not encouraged as half of the patients are negative for it. Performing a Tuberculin skin test may be prudent in areas of high prevalence. Skeletal imaging may be necessary to find the extent of joint involvement. Biopsy of the early skin lesions reveal a similar picture to psoriasis with hyperkeratosis, parakeratosis, acanthosis and presence of spongiform pustules in the upper dermis and epidermis. Most of the cases follow a self-limiting course however few may run a chronic course with relapses⁹. NSAIDS and a short course of prednisone can help alleviate pain and inflammation. Methotrexate and cyclosporine can also be helpful especially in severe cases of keratoderma blennorrhagicum and circinate balanitis.

CONCLUSION:

Reactive arthritis is a seronegative spondyloarthropathy with multi system affliction that occurs as an inflammatory response following an episode of enteritis or urethritis in a genetically predisposed

individual. Characteristic clinical features include arthritis of the weight bearing joints, axial skeleton and enthesitis, conjunctivitis and urethritis. Mucocutaneous manifestation include keratoderma blenorrhagicum and circinate balanitis/vulvitis. This case has been reported for its rarity.

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LEGENDS TO FIGURES:

- FIGURE 1: Clinical image showing the presence of pigmented and grossly keratotic plaques over the knees and legs
- FIGURE 2: Histopathological image under low power showing the hyperkeratosis, parakeratosis, acanthosis with papillomatosis
- FIGURE 3 : Histopathological image under high power showing the spongiform pustules within the epidermis containing neutrophils and lymphocytes



FIGURE 1

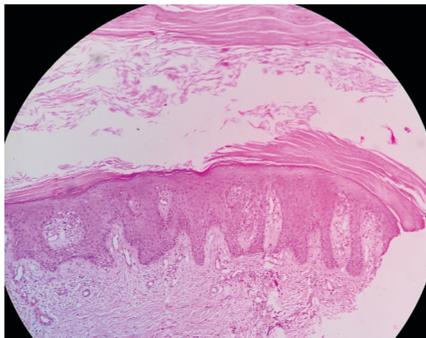


FIGURE 2

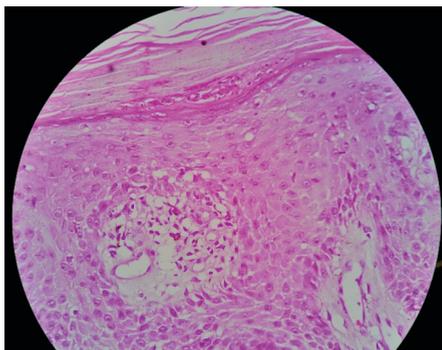


FIGURE 3

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