CASE REPORTS

REITER'S SYNDROME

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A 22-year-old mason presented with symmetrical polyarthritis of 2 years duration. He had a clandestine exposure 4 months before the start of the disease which resulted in a genital ulcer and urethritis. He had typical lesions of keratoderma blenorrhagica and inflammatory eye disease, positive rheumatoid factor and typical radiological feature of rheumatoid arthritis. The rare association of rheumatoid like arthritis and Reiter's syndrome is descussed.

Key Words : Reiter's syndrome, Keratoderma blenorrhagica,Rheumatoid arthritis

Introduction

Reiter's syndrome is a multisystem disease characterized classically as a triad of nongonococcal urethritis, conjuctivitis, and arthritis in association with the mucocutaneous lesions of keratoderma blenorrhagica and balanitis circinata. The fact only one third of patients show the complete triad and the recognition of incomplete Reiter's syndrome prompted the American Rheumatism Association to define Reiter's syndrome as "an episode of peripheral arthritis of more than one month's duration occurring in association with urethritis and/or cervicitis".[1]

It is probable that a preceding infection, usually a urethritis or dysentry, serves as a trigger in a genetically predisposed individual and that the disease may then persist or recur despite eradication of the infection. Postulated triggering agents are *Chlamydia trachomatis*, *Shigella flexneri*, *Salmonella* spp, *Yersinia enterocolitica*, *Campylobacter* spp, and perhaps *Neisseria gonorrhoea*, or other organisms including the spirochete *Borrelia burgdorferi*. Numerous studies confirm a high incidence of HLA B27 positivity (60-90%) in patients with Reiter's syndrome.

Arthritis, the single most important criteria of Reiter's syndrome, manifests commonly as an oligoarticular arthritis effecting the joints of lower extramities.[1,2] We report a case of Reiter's syndrome with an unusual rheumatoid like articular presentation.

Case Report

A 22-year-old male Hindu mason presented with pain and swelling of joints of two years duration, pus filled thick crusted skin lesions of one year and ten months duration. The pain started in the right knee joint and was associated with swelling and morning stiffness. The other knee joint, wrist joints, shoulder joints, finger and toe joints all became painful with mild to moderate swelling within a month. He had antiinflammatory treatment; but without any improvement. After another one month, he developed pus filled lesions all over body which healed with thick crusts. Despite regular treatment, his joints became deformed and

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painful, and the whole course was punctuated with recurrences of skin lesions associated with fever, chills, melaise, headche etc.

The patient had a genital ulcer and burning micturition following a clandestine exposure four months before the onset of the disease. With treatment, both had apparently cleared and he got married after two months. 15days after marriage, he again experinced burning micturition with scanty dischargs. His wife suffered from inguinal adenitis at the same time. They both took treatment and were relieved of their symptoms.

The skin lesions used to remit for a period of 2-2$^{1}/_{2}$ months after intensive therapy, though the arthritic compaints progressed steadily. As soon as the drugs were tapered and/or stopped, flareups were noted. Except for a history of bronchial asthma in a brother and grandmother, there were no relevant family history.

On examination, the patient was a thin built young man. The skin lesions were generalized, bilaterally symmetrical, and only relatively sparing the scalp, lower trunk, genitalia, and mucous membranes. The lesions were mainly pustules and plaquss with rupoid features. The healed lesions were plaques with typical concentric layers of thick yellow crusts and scales showing the 'cobble stone, limpet like or relief map like' picture. The plaques on the palms, and to a lesser extent soles, were yellowish and thick scaled plaques with cone shaped vesicles with thick covering in the centre (Fig. 1).

Squamous blepharitis and mild angular conjunctivitis were present. Circinate balanitis and oral lesions were conspicuous by their absence.

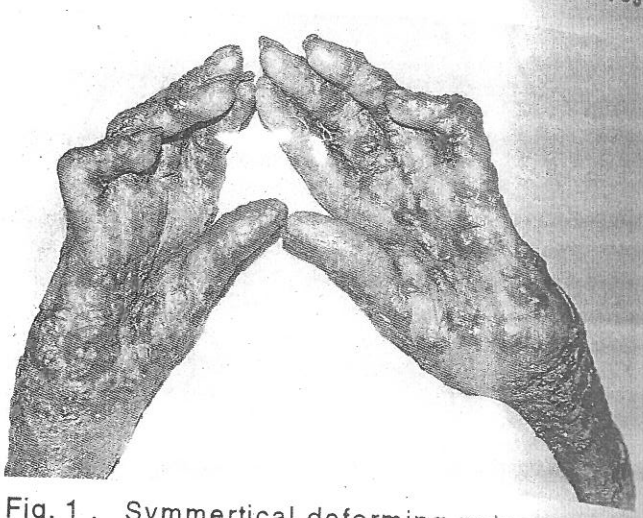

Fig. 1. Symmertical deforming polyarthritis of upper limbs with typical skin lesions of keratoderma blenorrhagica

The striking feature was the symmetrical deforming polyarthritis associated with painful swelling and limited movements. Upper extremities were predominantly affacted. Lower limbs were also affected, though to a lesser extent. Almost all joints were affected. Both elbow joints were swollen and tender with limited extension. Wrist jionts were swollen and tender with crepitations and fixed flexion deformity. Fourth and fifth metacarpophalangeal joints were hyperextended and the first proximal interphalangeal joint showed limited flexion, whereas all other proximal interphalangeal joints showed flexion deformities(Fig.1). Sicond distal interphalangeal joint had limited flexion and third, fourth, fifth distal interphalangeal joints showed hyperextension. Left thumb showed sausage defect.

Cervical and sacrococcygeal joints were tender and the extension and flexion movements were restricted. Hip joint extension was limited, and both knees were swollen and tender with flexion

deformity. Ankle joints were tender with limited eversion movements.

There was lateral deviation of both greater toes with fixed flexion at proximal interphalangeal joints of all toes. Tenderness and deformities were comparatively less in the distal lower extremities than the distal upper extremities. Nail changes included onycholysis, onychomadesis, yellowish discolouration, subungual hyperkeratosis., thinning, horizontal groves, friability and paronychia.

Other systemic examination were within normal limits. Routine hemorgam was within normal limits except for normocytic hypochromic anaemia and raised ESR (46mm). Urine examination showed 10-12 pus cells. Routine culture of urine was negativs. Chlamydial and ureaplasmal cultures were not done. Stool culture was also negative.

Rose Waaler test was positive. VDRL was nonreactive and ELISA test for HIV was negative. Serum uric acid 2.7 mg%, S. bilirubin 0.3 mg%, S. protein 8.1 gm%, S. albumin 2.8 gm% S. golbulin 5.3 gm%, SGOT 21 IU/l, SGPT 4 IU/l were the other findings. ECG showed no abnormality. HLA studies could not be carried out.

Histopathological section of the skin showed a psoriasiform picture. Early pustules showed spongiform macropustules in the stratum malpighi upper layers and exocytosis of neutrophils in the lower layers.

Synovial fluid studies were inconclusive, showing only lymphocytic cells. Routine culture was negative.

Radiography of hands showed minimal erosion of articular margins of middle and proximal phalanges, with reduction of intercarpal, carpometacarpal and proximal interphalangeal joint spaces with oseoporosis. There was subluxation of right second and left first interphalangeal joints with sausaging. Bone density was normal. The styloid process of both ulna showed osteoporosis.

Both sacroiliac joint spaces were reduced, as were the hip joints with periosteal reaction at trochanters. Elbows and knees showed reduction of joint spaces with periosteal reaction. On the foot, there was reduction of first metacarpophalangeal joint spaces. Calcaneal spur was not present.

Treatment with systemic steroids and antibiotics did not show any changes on skin lesions and arthritis. Hence we put the patient on methotrexate 15 mg weekly in three divided doses at 12 hourly intervals. Very good response was seen in the form of complete disappearnce of skin lesions within 7-10 days. But joint pain and swelling remained. The patient was, however, able to move about with help during remissions. Methotrexate was given for 7 weeks. At present he is on nonsteroidal antiinflammatory drugs on a maintenance dose.

Comments

The presentation of this patient is unique in that his keratoderma blenorrhagica was associated with seropositivity and rheumatoid arthritis like presentation. Though 3% of normal persons may have rheumatoid factor positivity, its occurrence in this case cannot be discounted as coincidental, especially with the rheumatoid arthritic picture.

In our patient the arthritis features were more in favour of rheumatoid arthiritis. The typical erosion of ulnar styloids were seen; which is rare in Reiter's disease and psoriatic arthritis.

The distal joints in Reiter's syndrome do not present the marked overgrowth of synovia seen in rheumatoid arthritis. Though our patiant showed marked deformity of the proximal interphalangeal joints, the typical soft tissue swelling of rehumatoid arthritis was conspicuous by its absence. The bone density was normal. These were the only findings not typical of rheumatoid arthritis. The association of rheumatoid arthritis, and Reiter's syndrome is very unusual, though rheumatoid arthritis like seronegative arthritis has been resported in Reiter's syndrome.[3]

The typical history of arthritis with onset following sexually acquired urethritis with classical keratoderma blenorrhagica and inflammatory eye disease in a young adult male points the diagnosis in favour of Reiter's syndrome.

References

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