Indian J Dermatol Venereol Leprol 1987; 53 : 108-111

REITER'S DISEASE — CLINICAL PROFILE OF SIX CASES

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Common clinical features of 6 cases of Reiter's disease were chronic asymmetrical peripheral arthritis, keratoderma blenorrhagica, stomatitis, circinate balanitis, urethritis and back pain. HLA B27 was found positive in three cases investigated. Two corticosteroid unresponsive patients were managed with weekly methotrexate.

Key words: Reiter's disease, Seronegative spondylarthropathy, Urethritis, Methotrexate.

Reiter's disease is a multi-system disorder and a better eponym than Reiter's syndrome since various clinical features may not be seen at presentation.[1] Mono-symptomatic forms are on record.[2] Genetically predisposed persons with HLA B27 marker develop the disease after an infectious triggering stimulus which is non-gonococcal urethritis or dysentery in post-venereal (endemic) and post-dysenteric (epidemic) forms respectively.[3] Ten to twenty percent patients, however, do not possess HLA B27 antigen and may demonstrate other cross-reacting types.[1] Two epidemics of Reiter's disease described by Paronen in 1948 and Noer in 1966 became central to our understanding of the disease.[4,5] The risk of developing Reiter's syndrome is about 1% after a specific stimulus.[6]

Materials and Methods

The clinical data of six cases of Reiter's disease seen in the Department of Dermatology during September 1983 to March 1986 was evaluated. Most of the patients of Reiter's disease with arthropathy as the main manifestation are seen in the Rheumatology department of the Institute, however patients with dermatological or uro-genital features frequent dermatology outpatient. In addition to the thorough clinical work up and routine investigations, most of the patients were subjected to HLA typing, urethral and prostatic fluid smear examinations for the pus cells and micro-organisms, culture for gonococci and mycoplasma T, stool culture, detailed radiological, cardiac and eye examinations.

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Results

All the six patients were males and 22 to 38 years of age. The duration of disease was 3 months to 2 years. The details of the presenting complaints, examination, investigations and management are given in table I. Arthritis and arthralgia were the most common presenting symptoms. Only one patient reported with monoarticular arthritis, the rest had asymmetrical peripheral polyarthropathy, involving predominently weight-bearing joints of the lower extremities like knees and ankles. The joints of the upper extremities like wrists, elbows and shoulders were involved during further course of the illness. Axial skeletal involvement with spinal stiffness and back pain was noted later in three patients. The interphalangeal joint involvement with sausage shaped picture was seen in one patient. The number of attacks of recurrent arthritis ranged from 1 to 10. Case 5 had only one attack but is needed to be followed. The duration of initial attack was 3 to 6 months. Urethritis was not a presenting complaint but was recorded on examination of the urethral and prostatic fluid smears. None of the cases

showed intracellular Gram negative diplococci and cultures for gonococci and mycoplasma were negative. Chlamydia could not be cultured due to the lack of facilities. None of the patients had diarrhoea prior to the onset of disease, however, case 3 developed acute colitis during methotrexate therapy. Three patients gave history of flitting type of bilateral and non-descript conjunctivitis. Case 5 developed severe bilateral muco-purulent conjunctivitis during follow up of non-gonococcal urethritis. Case 5 had late features of bilateral uveitis. Skin lesions were seen in all except case 5. These started from lower extremities. The initial lesion was a discrete, micro-papular, erythematous, pruritic or asymptomatic lesion becoming pustular in 3 to 7 days. The centre of the pustule developed hyperkeratotic area and dried up as a conical limpet like crust. Well marginated circinate erosions were seen on the tongue, buccal mucosa, palate and lips in four patients. Circinate balanitis was seen in five patients and subungual hyperkeratosis in all cases. Histopathological changes were suggestive of Reiter's disease. Family history of psoriasis or arthritis was absent.

HLA typing was done and found positive in three cases. Asymmetrical radiological abnormalities of the ankles were found in 3 patients and sacro-ileitis in 2 cases. Bony spurs were detected at the insertion of achilles tendon and plantar fascia in two patients. Rheumatoid factor was negative in all cases. Tetracycline 1 gm/day for 21 days alleviated urethritis in 2 patients, but did not seem to be effective in 3 patients. Analgesics, non-steroidal anti-inflammatory agents like ibuprofen (1200 mg/day), indomethacin (200 mg/day) and physiotherapy were useful in 5 cases but were ineffective in case 3 who had marked disuse muscular atrophy. Topical bland applications and corticosteroids were ineffective for the skin lesions of cases 2 and 3. Severe incapacitating joint symptoms and persistent skin lesions coud not be controlled with 60 mg daily prednisolone, hence 25 mg per week methotrexate as a single oral dose was started afte assessing liver function and liver biopsy. After 4 weeks therapy, the skin lesions cleared and methotrexate was tapered to 7.5 mg per week. However, joint symptoms of case 3 did not improve appreciably and he was lost to subsequent follow-up.

Comments

Reiter's disease is a rare but not uncommon disorder, seen world-wide, affecting sexually active adult males of the third decade with a ratio preponderance of 20:1. Fox et al evaluated clinical features of 131 patients on their first visit and found monoarthritis (4%), polyarthritis (96%), urethritis/cervicitis (88%), diarrhoea (15%), eye disease (59%), back pain (70%), heel pain (58%), balanitis (45%), insertional tendinitis (48%), stomatitis (25%), keratoderma (20%) and nail lesions in 8%.[8] The common features in our patients were polyarthritis, keratoderma blenorrhagica, balanitis, nail changes, urethritis and back pain. The predominence of the skin lesions in our cases is not unusual as in other cases seen by dermatologists and supported by the few case reports from India.[9-13] Sairanen followed 1000 patients of Reiter's disease for 20 years and found chronic peripheral arthritis in 18%, chronic spinal disease in 32% and chronic arthritis, inactive at the time of examination in 30%.[14] Since our patients have been seen only during last 3 years, chronic features were not observed. Rarer ECG changes, aortic regurgitation, neuropathies and pulmonary fibrosis have been reported.[6, 7, 14]

The classical triad of arthritis, urethritis and uveitis or tetrad with the addition of balanitis usually occurs over a length of period and may not always be complete, posing diagnostic problems in the incomplete forms.[7] The difficulty is compounded manifold because of the features inherent to Reiter's disease like non-availability of the absolute diagnostic tests, mobile and difficult-to-follow community of

Table I. Frequency of clinical features of six cases of Reiter's disease.

Arthritis	Monoarthritis — 1/6, Polyarthritis — 5/6, Back pain — 4/6, Insertional tendinitis — 2/6, Sausage digits — 1/6.
Diarrhoea — 1/6, Urethritis — 5/6, Conjunctivitis — 2/6, Uveitis — 1/6, Stomatitis — 4/6.	
Nail changes — 5/6	
Number of recurrent attacks — 1 to 10.	
Duration of initial attacks — 3 to 18 months	
HLA B27 positivity — 3/3	
Radiological abnormalities. Asymmetry — 3/6, Peripheral joint involvement — 3/6, Sacroiliac changes — 2/6, Bony spurs — 3/6.	

the young adults, suppressed or minimal venereal history, mild or forgotten enteric features, asymptomatic oral, penile and urethral lesions, easily overlooked subtarsal evanescent conjunctivitis, misdiagnosis as sero-negative rheumatoid arthritis, overlapping sero-negative spondylarthropathies and fragmented multidisciplinary care.[7] To overcome these difficulties, Fox et al proposed diagnostic criteria of seronegative asymmetric arthropathy and one or more of the urethritis/cervicitis, dysentry, inflammatory eye disease and mucocutaneous disease like oral ulceration, balanitis or keratoderma.[8] Willkens et al evaluated 83 patients of Reiter's disease and 166 comparative arthritis patients in order to assess the preliminary criteria.[15] The criteria of an episode of peripheral arthritis of more than one month, occurring in association with urethritis/cervicitis yielded a sensitivity of 84.3%.[15] The differential diagnosis of Reiter's disease and pustular psoriasis continues to be argued. In spite of their clinical, histopathological and radiological similarities and reported concurrence of the lesions in 11 patients, there are differences in the course, sites involved, morphology and histopathology.[16] The pustular lesions of Reiter's disease have slower speed of evolution than psoriasis, taking an average of 7 days to form full blown crusted pustule.[17] Reiter's disease is a chronic disorder and long term toxic agents should be avoided.[6] Symptomatic management of the acute episodes warrants the use of analgesics, non-steroidal anti-inflammatory agents and physiotherapy.[6,7] Use of antibiotic therapy is controversial and urethritis is self limiting.[6] Occasionally symptomatic management fails, leading to the persistence of mucocutaneous and joint symptoms. For these individuals corticosteroids and methotrexate are justified.[6, 18] Following an increasing trend to utilize the therapeutic potential of weekly methotrexate, we found it effective in 2 patients.[19, 20]

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