TREATMENT OF REITER'S DISEASE

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Two classical cases of Reiter's disease, one successfully treated with methotrexate and the other with sulphasalazine are reported.

Key Words : Reiter's disease, Methotrexate, Sulphasalazine

Introduction

Reiter's disease is a multisystem disorder classically described as a triad of urethritis, arthritis and conjunctivitis. Keratoderma blenorrhagicum is found in some cases. All the components may not be found at the same time. The response to treatment is variable. Mild joint pains may only need rest. Others may need nonsteroidal anti-inflammatory drugs, corticosteroids or methotrexate depending on the severity of the disease.[1]

Sulphasalazine has not yet been used in Reiter's disease, which has proved useful in Rheumatoid arthritis.[2] We report here 2 cases one controlled with methotrexate and the other with sulphasalazine. The difference in response to the two drugs is discussed.

Case Reports

Case 1 : A 24-year-old unmarried male presented to the Dermatology department with burning micturition, joint pains and skin lesions of 2 months duration, following diarrhoea 1 month earlier. Patient had mild mucoid discharge per urethra alongwith circinate balanitis. The pain in the joints started in the left ankle, spread to involve both knees, shoulder, interphalangeal joints and spine. There was swelling and restriction of movements of all these joints.

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Similarly, the skin involvement was noted on the palms and soles followed by involvement of trunk, face, scalp and extremities. The lesions were painless, crusted, keratotic plaques, associated with erythematous macules, vesicles and pustules.

Investigations showed a haemoglobin level of 12 gm%, and ESR of 40 mm/1st hour. The fasting blood sugar, blood urea and serum creatinine were within normal limits. Liver function tests done before starting treatment revealed a serum bilirubin of 0.5 mg%, A/G ratio 4.2/2.4, Alkaline phosphatase 7.8 KAU, SGOT 35 IU and SGPT 24 IU. Radiological examination showed soft tissue swellings of the involved joints. The smear taken from the urethra and stained with gram stain showed 7 to 10 neutrophils per high power field. However no intra-cellular organisms were noted. Culture from the urethral discharge did not grow any organisms on regular and selective media.No cultures were done for chlamydia. The serological test for Rheumatoid factor was negative. Histopathology of the skin showed thick parakeratotic horny layer, spongiosis, irregular acanthosis with elongation of rete ridges. The keratin layer enclosed a pustule filled with acute inflammatory infiltrate. The superficial dermis showed moderate perivascular chronic inflammatory infiltrate.

The patient was treated with tetracyclines in the dosage of 500 mg 6 hourly for first 15 days which controlled the urethritis without any improvement in the other

manifestations. Prednisolone used in the dosage of 40 mg per day for 1 month had no effect. Adding of methotrexate in a dose of 7.5 mg per week intramuscularly showed improvement in the joint and skin lesions by the third week. Methotrexate was continued with tapering of corticosteroids. Patient had become asymptomatic with complete improvement by 12 weeks. Methotrexate was given for 2 more weeks and stopped.

Liver function tests (LFT) repeated during and after the treatment period were within normal limits.

Case 2: A 22-year-old promiscuous, single,male presented to the Dematology department with burning micturition, discharge per urethra,joint pains and skin lesions which appeared sequentially in 1 month's time. He had an episode of diarrhoea 15 days prior to the appearance of the above symptoms. There was history of scanty mucoid urethral discharge with erosions of glans and prepuce. He had a non suppurative polyarthritis which began in the left knee and spread later to ankles, wrists and shoulder joints. Movements were restricted and the skin overlying the joints was erythematous. Effusion was noted in the left knee. Macules, papules, and pustules and hyperkeratotic plaques with thick crusts were noted on the palms and soles, face, trunk and extremities.

Investigations revealed Hb level of 4.8 gm%, ESR of 66 mm/1st hour. The FBSL, blood urea and serum creatinine were within normal limits. The LFT done before treatment were also normal. Radiological examination of joints showed a soft tissue swelling. The smear taken from the urethra and stained with gram stain showed few neutrophils. However no intracellular organisms were seen. Culture from the urethral discharge did not grow any organism. The serological test for Rheumatoid factor was negative. Histopathological changes were similar to those of the first case and hence consistent with clinical diagnosis.

Initial treatment with tetracyclines 500 mg 6 hourly for 15 days controlled the urethritis. His haemoglobin was built up with blood transfusion and haematinics before starting indomethacin. Indomethacin in the dosage of 25 mg thrice daily for 2 weeks did not show any improvement in the joint and skin lesions. The effusion in the left knee required tapping. Patient was given 0.5 gms sulphasalazine per day for the first week, 1 gm/day for the second week and 1.5 gm/day for the third week and was maintained in this dosage till the patient stopped the treatment of his own at the end of 2 months. Improvement in the skin and joint lesions was noted at the end of the first week. Complete clearance of skin lesions, joint pains and swelling was seen by 4 weeks of sulphasalazine.

Elisa test for HIV was negative in both cases. HLA-B27 studies were not done due to lack of facilities. Both patients are followed up for the last 1 year and have remained asymptomatic.

Comments

The diagnosis of Reiter's disease in both the cases was mainly based on the clinical features supplemented by histopathological findings.

There is no specific treatment for Reiter's disease. Tetracyclines are used to control underlying infections. Non-steroidal anti-inflammatory drugs, corticosteroids, antimetabolites like methotrexate and azathioprine have all been used depending on the severity of the disease and response. One of our patients responded well to methotrexate used weekly for 14 weeks.

Sulfasalazine is used in the treatment of

Rheumatoid arthritis as a second line drug. It was used emperically in our patient of Reiter's disease to control the joint involvement. The improvement in the swelling of the joints and pain was noted by the end of a week and was complete by 4 weeks.

There was a definite difference in the treatment response to the 2 drugs in our patients. The response to sulphasalazine was faster as compared to methotrexate. Moreover sulphasalazine is a safer drug than methotrexate. Further studies are required to confirm these findings.

The mechanism of action of sulphasalazine is unclear. Inhibition of prostaglandin biosynthesis, inhibition of random migration of polymorphonuclear leucocytes and superoxide production by them and inhibition of the lipoxygenase pathway are some of the mechanisms described leading to anti-inflammatory action.[4] Any one or a combination of these mechanisms may have played a role in controlling the signs and symptoms in our patient.

Reiter's disease is a chronic debilitating condition where natural remissions may be noted after months or years. The rapid improvement within 3 months of onset of the disease suggested that the remission is because of the drugs. However the possibility of a natural remission cannot be ruled out. Our patients are being followed up for last 1 year without any recurrences.

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