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Methotrexate in Psoriatic Polyarthritis

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Methotrexate (MTX) is widely accepted as an effective treatment for psoriasis and chronic polyarthrides. We report data from 54 psoriatic polyarthritis patients (354 encounters) treated with MTX. 65% were males, mean age 47.9 years, mean disease duration 9.8 years for arthritis, 14.2 years for psoriasis. The MTX dose was 10–12.5 mg/week. 32 patients are still on MTX after a mean treatment time of 1.6 years. 22 patients discontinued MTX treatment: 11 felt it to be ineffictive, in 6 patients there were side effects, 3 patients obtained remission, while 2 patients underwent surgery. Efficacy was good on the whole: number of swollen and tender joints, global disease activity score, ESR, and CRP all underwent a significant reduction. The intake of symptomatic drugs was reduced in 40%. Psoriasis as assessed with the Psoriasis Activity and Severity Index showed a significant improvement. Our data confirm that MTX is of value in most psoriatic polyarthritis patients (60%). In our experience, this drug, gives the maximum efficacy within 6 months of therapy.

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The association between psoriasis and arthritis has been studied and described by many authors, but not until 1973 did Moll and Wright identify the partiular characteristics of articular involvement in psoriatic arthritis (PA).

Even if from a rheumatological point of view PA is less disabling than rheumathoid arthritis, it has recently been confirmed from studies (1) that one-fifth of PA patients had very severe diseases. We therefore need drugs capable of treating PA without exacerbating psoriasis, as some NSAIDs do. We decided to form a combined task force of rheumatologists and dermatologists to study this therapeutic problem and particularly the effects of Methotrexate (MTX).

MTX was first used to treat PA in 1951 (2), with good results. Since then, rheumatologists have treated PA with long-term (1–10 years), low doses of MTX, whereas dermatologists have used the drug for short periods only. The most feared side effect, hepatotoxicity, is a matter of discussion and analysis. Some think that MTX-induced cirrhosis cannot be aggressive in the absence of any clear correlation between MTX dose and duration of administration (3). Moreover the hepatic damage is reversible with the suspension of the treatment (4). Other authors state that a liver biopsy should be made after a cumulative dosage of 1,500 mg or after a period of 2 years of therapy (5). However, it is known that patients with hepatic or renal alterations, drinkers of alcohol or diabetics, are more predisposed to hepatic MTX-induced damage.

MATERIAL AND METHODS

We have studied 54 PA patients, 65% male, with mean age of 47.9 years. All the patients are affected by polyarthritis (more than 10 joints involved) and psoriasis. The mean psoriasis duration is 14.2 years, while that of arthritis is 9.8 years. The mean Psoriasis Area and Severity Index (P.A.S.I.) at the first encounter is 6.8. Every patient was initially assessed with examination, laboratory testing and X-ray of the involved or suspected joints. These tests and clinical evaluation were repeated at regular intervals. MTX was given intramuscularly at a dose of 10 mg/week (7.5–15 mg/week).

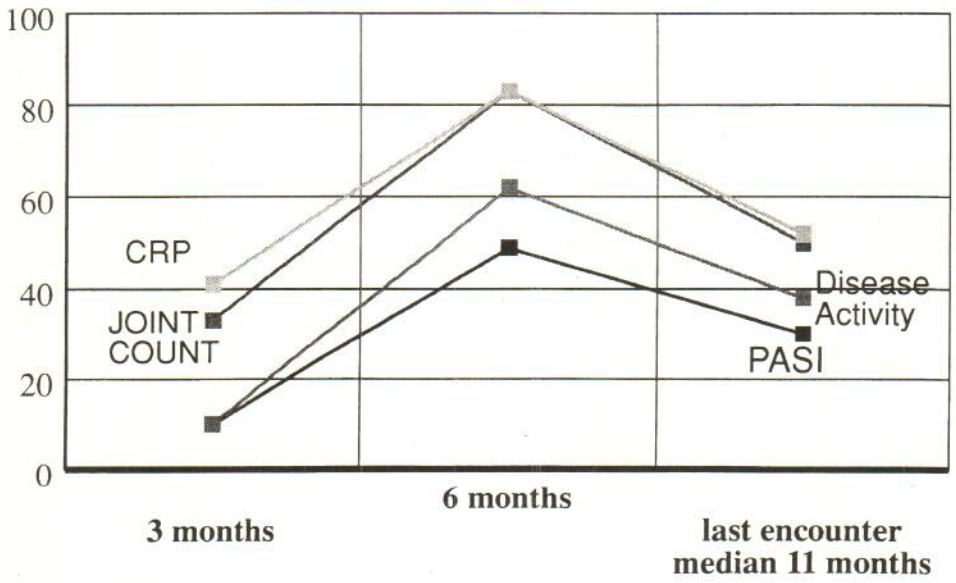

Fig. 1. Efficacy over time. Percentage of patients improved by at least 70% for each parameter.

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RESULTS

The mean period of treatment was 1.6 years (4 months – 3 years) for the 32 patients (59%) still taking MTX, and 1 year (3 months – 3 years) for the 22 patients (41%) who discontinued the drug. Interruption of the treatment was in 11 patients (50%) for inefficacy, in 6 patients (27%) for side effects, in 3 patients (14%) for remission and in 2 patients (9%) for surgery. To study the efficacy of MTX, we have considered four parameters: P.A.S.I., joint count, CRP, global disease activity score (Fig. 1).

Psoriatic skin symptoms generally sustained stable amelioration during treatment, judging by the P.A.S.I. However, complete resolution of the rash was seen in only 3 patients, in contrast to the 90% reported by other authors (5). Moreover, we did not observe any relevant change in psoriatic nail involvement, even after years of therapy. Fig. 1 shows the proportion of patients who improved by at least 70% for each parameter. We can see a significant amelioration for all the parameters after 6 months of treatment. During this time a good proportion of the patients were able to reduce or discontinue their symptomatic drug intake. The side effects noted were frequently moderate (nausea), but 6 patients withdrew MTX, due to severe stomatitis (2 patients), marked liver function test abnormalities (LFT) (2 patients), and longstanding skin infection (2 patients). The withdrawal was decided because side effects were still relevant despite a gradual reduction of MTX dose. A moderate increase in aminotransferase values was observed in the 11 other patients (23.4%).

DISCUSSION

Our experiences confirm that MTX is a valuable therapeutic agent for psoriatic arthritis, probably the most effective and tolerable among the so-called 'disease-modifying' agents. About 40% of our patients responded poorly to MTX and the side effects were dyspepsia, stomatitis, moderate LFT abnormalities; the resulting risk/benefit ratio still seems to be questionable. Probably this is also due to the variable and unpredictable course of psoriatic arthritis. Intramuscular MTX does not appear to be preferable to oral MTX in terms of efficacy and tolerability, nevertheless in our patients this route of administration seems to contribute to a higher patient compliance.

We conclude that MTX, in our experience, provides an overall 60% satisfactory response (with a 20% total remission). Moreover, MTX gives the maximum efficacy within 6 months of therapy: thereafter there is no further reduction in disease activity and the degree of improvement appears to diminish. All this suggests, in our opinion, a different approach to MTX therapy for both rheumatologists and dermatologists: if the best clinical results are achieved in 6 months, we should choose a cyclical 6-month schedule for MTX therapy in PA.

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