

# Review: Sulfasalazine, azathioprine, and etretinate improve a global index of disease activity in psoriatic arthritis

Jones G, Crotty M, Brooks P. Interventions for psoriatic arthritis. Cochrane Database Syst Rev. 2000;(3):CD000212 (latest version 31 May 2000).

## QUESTION

In patients with psoriatic arthritis, what is the effectiveness and safety of various therapeutic agents?

## DATA SOURCES

Studies were identified by searching MEDLINE (1966 to 2000) and EMBASE/Excerpta Medica (1974 to 1995) with the terms psoriasis, arthritis, therapy, and controlled trial. The Cochrane Clinical Trials Register, bibliographies of relevant papers, and conference proceedings were also searched, and drug companies were contacted.

## STUDY SELECTION

Randomized controlled trials (RCTs) in the English language were selected if they had  $\geq 2$  treatment groups, one of which was a placebo group, and compared therapeutic agents in patients  $\geq 20$  years of age who had psoriatic arthritis.

## DATA EXTRACTION

Patient characteristics; study characteristics and quality; treatments; outcomes, including acute phase reactants, disability, pain, patient global assessment, physician global assessment, swollen joint count, tender joint count, radiographic changes of joints measured at  $\geq 1$  year, and a global index of disease activity; and adverse effects.

## COMMENTARY

Surprisingly few RCTs have addressed the management of psoriatic arthritis, with many treatments being based on non-RCT data. The review by Jones and colleagues reports on RCTs of the effectiveness of different therapeutic options compared with placebo. Readers must be cautious, however, when translating some of these results into clinical practice. Of the 1022 patients included, 55% were involved in studies of sulfasalazine and 22% in studies of auranofin. Results from the other 6 agents come from small studies with wide CIs, such as the study of azathioprine (6 patients). The follow-up durations were short, which is of concern especially because psoriatic arthritis is a chronic condition. Comparable data were not available for all important outcomes. The authors report a global disease index, which is a reasonable summary measure for studies with the appropriate data. Although 3 treatments improved the index, the Ritchie score was the only source of index data in the azathioprine study. The disease index in the etretinate study had a wide CI. Methotrexate failed to show effectiveness, but this may have been because the small sample size in the study led to insufficient statistical

## MAIN RESULTS

20 RCTs were identified, and 13 (1022 patients) were included that used auranofin, colchicine, etretinate, fumaric acid, intramuscular gold, azathioprine, oral methotrexate, and sulfasalazine (salazopyrin). Results are given for the various therapeutic agents compared with placebo. Sulfasalazine (6 studies) (Table), azathioprine (1 study), and etretinate (1 study) improved a global disease index. Sulfasalazine (4 studies) and auranofin (2 studies) reduced pain (Table). Sulfasalazine (4 studies) (Table), etretinate (1 study), and fumaric acid (1 study) reduced the erythrocyte sedimentation rate. Intramuscular gold (1 study) and azathioprine (1 study) reduced tender joint count. Auranofin (1 study) reduced swollen joint count. Sulfasalazine (2 studies) (Table) and

methotrexate (1 study) reduced scores for both patient and physician global assessment. Inadequate data existed for safety assessments of the various therapeutic agents.

## CONCLUSIONS

Sulfasalazine, azathioprine, and etretinate improve the global index of disease activity, and therapeutic agents have variable effects on individual disease activity markers in patients with psoriatic arthritis. Data are insufficient for assessing the safety of the various therapeutic agents.

*Source of funding:* No external funding.

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## Various interventions vs placebo for psoriatic arthritis\*

Outcomes	Intervention	Weighted mean difference (95% CI)
Global disease index (units)	Sulfasalazine	0.38 (0.21 to 0.54)
Pain (100-mm visual analog scale)	Sulfasalazine	-9.5 (-15 to -4.0)
	Auranofin	-3.0 (-3.2 to -2.8)
Erythrocyte sedimentation rate (mm/h)	Sulfasalazine	-7.5 (-11 to -4.3)
Patient global assessment score	Sulfasalazine	-0.55 (-0.79 to -0.31)
Physician global assessment score	Sulfasalazine	-0.27 (-0.49 to -0.05)

\*Follow-up ranged from 12 to 36 weeks for studies that reported follow-up.

power. In contrast, previous studies support the efficacy of methotrexate (1).

To determine the effectiveness of a particular treatment, clinicians must consider the magnitude of benefits, safety, and costs. Although at least 1 other study of long-term treatment for psoriatic arthritis has shown the efficacy and tolerability of methotrexate (2), on the basis of this meta-analysis, sulfasalazine is still the drug of first choice for psoriatic arthritis.

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## References

- Cuellar ML, Espinoza LR. Methotrexate use in psoriasis and psoriatic arthritis. *Rheum Dis Clin North Am.* 1997;23:797-809.
- Lacaille D, Stein HB, Raboud J, Klinkhoff AV. Longterm therapy of psoriatic arthritis: intramuscular gold or methotrexate? *J Rheumatol.* 2000; 27:1922-7.