Annals of the Rheumatic Diseases, 1986, **45**, 139–140

Sulphasalazine in rheumatoid arthritis: desensitising the patient with a skin rash

D E BAX AND R S AMOS

From the Rheumatism Research Unit, Nether Edge Hospital, Sheffield S11 9EL

SUMMARY Sulphasalazine has been shown to be useful in the management of rheumatoid arthritis. However, its use may be complicated by a skin rash. Eight patients with a rash have undergone desensitisation, the aim of which was to achieve a daily dose of 2 g sulphasalazine. This was successful in five patients, partially successful in two, and failed in one patient. Desensitisation to sulphasalazine is a simple outpatient procedure, which subsequently allows the majority of patients developing a skin rash to continue treatment.

Key words: desensitisation, salazopyrin, adverse effect.

In the five-year period 1980–5 292 patients with rheumatoid arthritis were started on sulphasalazine in our unit. Nineteen developed a skin rash. This usually occurred within a week of starting sulphasalazine, but occasionally the rash occurred after several weeks when benefits had already been seen.

In an attempt to avoid unnecessary discontinuation of sulphasalazine therapy we have explored the possibility of desensitising patients who developed a skin rash.

Patients and methods

Eight patients with rheumatoid arthritis who developed a skin rash on sulphasalazine are reported. The type and the timing of the rash are shown in Table 1. Six of the eight patients had pruritic scaly erythematous eruptions predominantly affecting trunk and limbs and showing no predilection to areas exposed to sunlight. One patient with such a rash also had minor facial swelling. Patient 1 (see Table 1) had urticarial lesions accompanied by some facial swelling, and patient 7 had an eczematous eruption involving face and hands which was presumed to be due to photosensitisation of the skin by sulphasalazine. This was accompanied by vesicle formation on the lip and eyelid.

The patients were all initially taking 1 g of enteric coated sulphasalazine daily with the intention of increasing to 2 g after one week's treatment.

Desensitisation was carried out on an outpatient basis by a kit supplied by Pharmacia (Great Britain) Ltd. The desensitisation kit consisted of packs of 1 mg, 10 mg, and 100 mg sulphasalazine capsules and instructions for the patient. Beginning with a 1 mg daily dose the dose was increased to 800 mg over the course of 24 days. Thereafter the standard enteric coated 500 mg tablets were used, and the aim was to achieve a daily dosage of 2 g sulphasalazine for each patient.

Results

All patients completed the desensitisation pack, though one withdrew before going on to standard tablets (500 mg) because of intolerable skin irritation in the absence of a visible rash. The other seven remained on sulphasalazine, five tolerating full doses of 2 g daily and two taking 1 g and 1·5 g daily respectively. The reduced dosage in these two patients was necessitated by minor recurrences of skin irritation, but in both instances the patients regarded this as acceptable in view of the improvement which had been obtained in their arthritis. Five patients tolerated full doses of sulphasalazine with no problems. The results are summarised in Table 1.

Of the seven patients continuing with sulphasalazine after desensitisation only one has since discontinued treatment due to lack of efficacy, and four have shown marked clinical and laboratory improvement in their rheumatoid arthritis.

Accepted for publication 25 July 1985.
Correspondence to Dr D E Bax.

Table 1 *Sulphasalazine induced skin rash: type of rash and outcome of desensitisation*

Patient No	*Sex*	*Rash*	*Onset (weeks)*	*Outcome*
1	F	Urticaria, facial swelling	<1	Full dose, no rash
2	F	Extensive maculopapular	<1	Full dose, no rash
3	F	Extensive maculopapular	<1	Full dose, no rash
4	M	Extensive maculopapular	1	Full dose, no rash
5	M	Extensive maculopapular	8	Full dose, no rash
6	F	Extensive maculopapular	<1	Reduced dose, no rash
7	M	Eczematous, photosensitive	6	Reduced dose, blistered lip
8	F	Extensive maculopapular facial swelling	2	Drug withdrawn, recurrent facial swelling

Discussion

Sulphasalazine may cause a wide range of cutaneous reactions, most of them due to the sulphapyridine moiety. Sulphonamides may also cause erythema multiforme and epidermal necrolysis,[1] though in nearly 300 patients we have treated with sulphasalazine we have never seen such adverse reactions. If such severe reactions were to occur we would not recommend attempts to desensitise the patient to sulphasalazine because of the risk of inducing a severe and potentially fatal reaction.

Sulphasalazine has been shown to be a useful addition to the treatments available for rheumatoid arthritis.[2–4] Adverse effects have proved troublesome, though they have generally been less frequent and less severe than those caused by established 'second-line' drugs such as gold.[2] Clearly any procedure which helps to overcome an adverse effect is welcome, and we have shown that desensitisation to the skin rash caused by sulphasalazine may be easily achieved. This confirms the findings of Holdsworth[5] working in the field of inflammatory bowel disease, but to our knowledge this procedure has not previously been described in patients with rheumatoid arthritis taking sulphasalazine.

Desensitisation to the common rashes induced by sulphasalazine is possible for most patients and may be worthwhile in the long term for many rheumatoid patients.

We thank Dr J M H Moll for permission to include one of his patients in this report. We thank Pat Drake for her help in the preparation of this paper.

References

1 Baker H. Drug reactions. In: Rook A, Wilkinson D S, Ebling F J G, eds. *Textbook of dermatology*. 3rd ed. Oxford: Blackwell Scientific, 1979: 1142–3.
2 Bax D E, Amos R S. Sulphasalazine: a safe, effective agent for prolonged control of rheumatoid arthritis. A comparison with sodium aurothiomalate. *Ann Rheum Dis* 1985; **44:** 194–8.
3 Neumann V C, Grindulis K A, Hubball S, McConkey B, Wright V. Comparison between penicillamine and sulphasalazine in rheumatoid arthritis. *Br Med J* 1983; **287:** 1099–102.
4 Pullar T, Hunter J A, Capell H A. Sulphasalazine in rheumatoid arthritis: a double blind comparison of sulphasalazine with placebo and sodium aurothiomalate. *Br Med J* 1983; **287:** 1102–4.
5 Holdsworth C D. Sulphasalazine desensitisation. *Br Med J* 1981; **282:** 110.