Longterm experience with oral gold in rheumatoid arthritis and psoriatic arthritis

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SUMMARY Oral gold (auranofin) has been used in 31 patients, 20 with active rheumatoid arthritis and 11 with active psoriatic arthritis. In rheumatoid arthritis the oral gold treatment was compared to parenteral gold treatment in a patient blind trial for two years. The psoriatic arthritis cases were incorporated in an open trial. Auranofin 6 mg once daily reduced significantly the activity in rheumatoid arthritis and in psoriatic arthritis. The beneficial effect obtained with auranofin at a dose of 6 mg/day during the first year of treatment could not be maintained by 3 mg/day in the second year. Auranofin compared to parenteral gold had a distinct advantage of better systemic tolerability, although parenteral gold was found to be more potent. There was no greater risk for toxic skin reaction to oral gold in psoriatic arthritis than in rheumatoid arthritis. The overall conclusion of this long-term study is that oral gold (auranofin) 6 mg once daily, although slightly less effective than parenteral gold, can be considered to be the first choice of gold treatment for rheumatoid arthritis and psoriatic arthritis, because the compliance, which is a reflection of a combination of tolerance and efficacy, for oral gold therapy was, in our hands, undoubtedly superior to parenteral gold.

Key words: Auranofin, Gold, Rheumatoid Arthritis, Psoriatic Arthritis, Compliance.

INTRODUCTION

Gold salts were first used in the treatment of tuberculosis by Koch in 1890 (1). In 1928 Forestier, believing there to be clinical similarities between tuberculosis and rheumatoid arthritis, used gold salts for the treatment of the latter condition with good results (2). Gold is now well established as one of the main disease modifying drugs for routine treatment of rheumatoid arthritis (3, 4) and psoriatic arthritis (5). Clinicians have however, been reluctant to use gold in psoriatic arthritis for fear of producing a rash in a patient already suffering from one skin disease. Until recently only parenteral gold treatment was found to be effective. Although Paracelsius (1493-1541) in Sals-
burg, advocated aurum potabile, oral gold treatment for rejuvenating cures and ill-defined discomfort of ageing, it is only in the last decade that pharmacologists found gold compounds which by oral administration gave demonstrable serum gold levels (6). One of these phosphine complex molecules, auranofin, showed physicochemical properties different from those of compounds available for parenteral use (7) and demonstrated activity in animal models of articular inflammation (8).

Auranofin underwent extensive therapeutic trials in various centres of Canada, United States and Europe. The results of these trials have been presented and discussed in Montreal 1981 (9), Amsterdam 1982 (10) and Moscow 1983 (11). At these symposia it was shown by many centres including our own centre that auranofin improved the inflammatory indices in patients with rheumatoid arthritis in a similar fashion to, but not as powerfully as parenteral gold treatment, but with less serious side effects. Experience in psoriatic arthritis has not been reported yet. The present report concerns the longterm use of auranofin in rheumatoid arthritis and in psoriatic arthritis with special emphasis on compliance. A compliance study may give important information on therapeutic benefit since a drug which does not adequately relieve pain or which causes intolerable side effects will be discarded by the patient.

PATIENTS AND METHODS

Fifty one patients were entered into the study. Forty of them suffered from classical or definite rheumatoid arthritis according to the American Rheumatism Association and eleven of them from psoriatic arthritis as defined by Moll and Wright (12), consisting of inflammatory arthritis usually seronegative for rheumatoid factor associated with psoriasis.

All patients had active uncontrolled arthritis for more than 6 months and had not received gold, corticosteroids or immunosuppressive treatment in the past. Before starting the study, the patients were stabilized on therapeutic doses of nonsteroidal anti-inflammatory drugs.

The study design for rheumatoid arthritis was a patient blind comparison of auranofin (2 x 3 mg once daily) versus Allochrysine parenterally (100 mg weekly) over a period of one year, using a double dummy technique. After at least 6 weeks treatment, the frequency of Allochrysine injection could be reduced according to the patient's condition and tolerance. After one year period, patients still on auranofin continued to take auranofin with a reduced dose of 3 mg once daily at breakfast.

The study design for psoriatic arthritis cases was an open prospective study of auranofin (2 x 3 mg once daily).

ASSESSMENT

The patients reported to the clinic every 2 weeks for the first 2 months, then monthly for one year after the start of gold treatment and every 3 months thereafter. At each visit efficacy was evaluated by measuring grip strength, numbers of tender and/or swollen joints, pain, morning stiffness and erythrocyte sedimentation rate. Articular and activity indices were also computed. The articular index was calculated as the weighted summation of tender or painful joints and the weighted factor was relative for the joint size (7). The activity index was computed as the sum of percentage equivalents of scores of the following 5 parameters: articular index, grip strength, duration of morning stiffness, time to onset of fatigue and erythrocyte sedimentation rate (8). Untoward events occurring during the study were recorded. Haematology, blood chemistry and urinalysis tests were carried out at each visit. IgA, IgG, IgM and CHs0 were measured every three months. Blood samples were also taken for the determination of serum gold concentrations. Statistical analyses of the results