patients. Cryoglobulinaemia was not suspected in our patients in the absence of suggestive clinical phenomena and therefore cryoglobulins were not assayed. Further study of such patients may clarify the relevance of the finding of mixed cryoglobulinaemia to the pathogenesis of the arthropathy. The importance of serial serological testing of several streptococcal antibodies is emphasised.

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Association between gold induced skin rash and remission in patients with rheumatoid arthritis

Sir: The recent article by Drs Caspi, Tishler, and Yaron entitled 'Association between gold induced skin rash and remission in patients with rheumatoid arthritis'¹ states that this observation is 'previously undescribed'. In fact this association was described by one of us more than 30 years ago; it was published initially in abstract form in this very journal,² and subsequently in more detail as part of a review article.³ The second author of this letter discussed the association in a recent letter to *Arthritis and Rheumatism*.⁴

It is gratifying that this observation has remained valid over three decades. Our experience agrees with that of the authors: toxicity induced remissions are limited to dermatitis, and are not found with renal, pulmonary, or haematological reactions to gold. Although our earlier experience was limited to sodium aurothioglucose, as was that of the authors of the present paper, in later years we have seen the same response to sodium aurothiomalate on many occasions (unpublished).

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Serum osteocalcin concentrations in patients with rheumatoid arthritis

Sir: In the recent study of Pietschmann *et al*,¹ normal osteocalcin values in patients were reported, suggesting a normal rate of bone formation in these patients.

These data disagree with other studies, in which both increased and decreased serum concentrations of osteocalcin in patients with rheumatoid arthritis were reported. It was suggested by the authors that their differences might be related to the use of remission inducing drugs.

As most of the patients were women with an average age of 53 we wonder if patients were also matched for menopausal status. It is well known that osteocalcin is influenced by age, sex, and menopausal status.^{2,3}

I strongly believe that before definite conclusions can be drawn about serum osteocalcin and bone formation in rheumatoid arthritis we should have larger studies in which every patient ideally should be matched with a control of the same age, sex, and menopausal state.

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Sir: Reports of normal subjects state that serum osteocalcin concentrations are influenced both by sex and age.^{1,2} In our study on serum osteocalcin concentrations in patients with rheumatoid arthritis³ the ratio of premenopausal to postmenopausal women in the patient and control groups was very similar (patients with rheumatoid arthritis: 11 premenopausal, 10 postmenopausal; control subjects: 10 premenopausal, 10 postmenopausal). Furthermore, when the serum osteocalcin concentrations of premenopausal (and postmenopausal) patients were compared with those of the premenopausal (and postmenopausal) control subjects respectively no significant differences of serum osteocalcin concentrations between patients and controls were found either in the group of premenopausal or in the group of postmenopausal subjects.

Thus we do not believe that differences in the menopausal status of the patients and the controls can account for the normal osteocalcin concentrations we found in our patients with rheumatoid arthritis.

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