

that it does cause significant morbidity. Furthermore, although in this series cases were drawn from multiple disciplines, six of the 12 patients presented to the rheumatology unit, highlighting the need for rheumatologists to be aware of the condition. On plain x ray films, sacral fractures are notoriously difficult to detect, particularly in association with osteopenia. The diagnosis hinges on clinical suspicion and the correct interpretation of technetium-99m bone scanning. The diagnosis can be confirmed by computed tomography, but in the typical setting this is not mandatory.

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## Absence of antiphospholipid antibodies in Behçet's disease

Sir: Anticardiolipin antibodies (aCLA) and lupus anticoagulant (LA), both antiphospholipid antibodies (aPLA), are associated with multiple arterial or venous thrombosis, recurrent fetal losses, and thrombocytopenia.<sup>1,2</sup> They have been investigated in Behçet's disease (BD) with conflicting results. The purpose of our work was to extend the previous search for aCLA, LA, and antibodies detected by the Venereal Disease Research Laboratory (VDRL) test in BD, to aPLA directed against several anionic and zwitterionic phospholipids.

Nineteen patients (six women, 13 men), fulfilling the international criteria for diagnosis of BD<sup>3</sup> were studied. Their mean age was 34 years. Among them, eight had had venous thrombosis, one arterial thrombosis, and two both. Neurological disease, uveitis, or retinal

vasculitis were each present in six patients. Seven patients were HLA-B5 positive. Fourteen patients were treated with daily colchicine—as the sole treatment in nine, associated with corticosteroids in five. Corticosteroids were used in five other patients, associated with immunosuppressive agents in three.

For all patients IgG and IgM antibodies directed against cardiolipin alone, or a mixture of five anionic phospholipids (cardiolipin/phosphatidic acid/phosphatidylglycerol/phosphatidylinositol/phosphatidylserine), or phosphatidylethanolamine—a zwitterionic phospholipid—were investigated using a slightly modified enzyme linked immunosorbent assay (ELISA)<sup>4</sup> according to Harris's recommendations.<sup>2</sup> For each phospholipid normal optical values were defined as the mean optical density of a panel of 40 adult blood donor serum samples, after subtraction of optical density obtained for each serum on wells containing no phospholipids. The threshold for positivity was defined as a value higher than the mean+three standard deviations. Ten plasma samples were screened for the presence of LA with a dilute activated partial thromboplastin time and a kaolin clotting time. Lupus anticoagulant was subsequently confirmed by failure to correct the anticoagulant activity in a mixture of test and normal plasmas. A VDRL test was performed in nine patients.

Using ELISA, aPLA could not be demonstrated even with extensive investigations, including measurement of antibodies directed against phosphatidylethanolamine (recently described in systemic lupus erythematosus with thrombosis<sup>5</sup>), aCLA, and aPLA directed against five anionic phospholipids. Similarly, LA was not found and the VDRL test was negative. Therefore, no correlation was found between clinical manifestations and aPLA.

In a few studies aCLA have been found to be positive in BD. In 1984, using a radioimmunoassay, Hull *et al*<sup>6</sup> detected 13 patients positive for aCLA out of 70 (19%) with BD: seven were IgG, three IgM, and three IgG+IgM. A higher incidence of aCLA (35%) was later reported in 20 patients with BD,<sup>6</sup> but in this study the ELISA method and the threshold for positivity were not described. Bergman *et al*<sup>7</sup> detected aCLA in 13 out of 26 (50%) patients with BD, and only the IgM isotype was significantly found in BD. Interestingly, in all these studies no correlation could be found between the presence of aPLA and either biological or clinical features, except for retinal vascular disease in the first study.<sup>5</sup> Our results, however, are in agreement with other studies about aPLA in BD. In 1985 Efthimiou *et al*<sup>8</sup> did not confirm the study of Hull *et al*.<sup>5</sup> They found only two positive IgM aCLA in 25 (8%) patients with BD, but the same results were observed in controls. Another study of aCLA in 37 patients with BD was performed in 1986,<sup>9</sup> and no positive results were found. Similarly, the search for LA was negative in 69 patients with BD.<sup>10</sup>

The reason for the disparity between these studies remains unclear. It cannot be explained by clinical or ethnic differences in the groups with BD studied. Unlike Pereira *et al*,<sup>6</sup> we do not think that the use of immunosuppressive treatment can explain the absence of aPLA as only three of our 19 patients were taking such agents. This discrepancy might rather result from different technical approaches in the measurement of

aPLA as false positive results can be found in an ELISA when non-specific binding on ELISA plates devoid of phospholipids has not been subtracted or when the threshold for positivity is too low.<sup>2</sup>

We conclude that aPLA, including antiphosphatidylethanolamine antibodies, are generally absent in BD, and therefore cannot explain the thrombotic manifestations of this disease.

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## MATTERS ARISING

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### Still too early for the gold rush

Sir: In their recent editorial Taha and Sturrock suggest that in arthritic patients receiving non-steroidal anti-inflammatory drugs (NSAIDs) concomitant gold treatment might be useful in protecting the stomach from the development of mucosal injury.<sup>1</sup> As a gastroenterologist I find this hypothesis fascinating as adequate protection of the gastric mucosa against the noxious effects of long term NSAID intake is still an open issue. In fact H<sub>2</sub> blockers effectively prevent NSAID induced duodenal ulcers but are

unable to protect the stomach; on the other hand, misoprostol, while affording good protection of both gastric and duodenal mucosa, causes frequent side effects on the intestinal tract.<sup>2</sup> The conclusions of Taha and Sturrock, however, must be accepted with caution.

First of all in a recent paper on the subject they admitted that there was no significant difference in the prevalence of endoscopic abnormalities among patients taking NSAIDs alone or NSAIDs plus gold if the size of such lesions was not taken into consideration.<sup>3</sup> The relation between the claimed gastroprotective properties of gold and *Helicobacter pylori* infection is also unproved. The role of *H pylori* in NSAID gastropathy is still debated, but most studies deny that the microorganism can promote or worsen NSAID injury.<sup>2,4</sup>

The evidence quoted by Taha and Sturrock in favour of an inhibitory effect of gold on *H pylori* is mostly based on reports which have appeared only as abstracts. Full length papers provide conflicting data.<sup>4,5</sup> Taha and Sturrock mention a possible methodological inconsistency,<sup>1</sup> but negative results arose also in studies where, in addition to *H pylori* seroprevalence, the urea breath test was used.<sup>4</sup> It must also be remembered that the possible bactericidal effect against *H pylori* by gold in vitro failed to be confirmed in vivo.<sup>6</sup>

Finally, to infer that gold might exert gastroprotective effects similar to those of bismuth, merely because they are classified close to one another in the periodic table of elements, is mere speculation, especially if we consider some experimental reports<sup>7</sup> of gold induced gastric mucosal lesions.

As a physician and a researcher concerned with the problem of preventing NSAID induced gastroduodenal lesions I do hope that eventually the hypothesis of Taha and Sturrock will prove correct. For the time being, however, this remains a (golden)

dream that does not justify widespread use of gold in clinical practice as a possible prophylactic of NSAID gastropathy.

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- 1 Taha A S, Sturrock R D. The gold plated stomach. *Ann Rheum Dis* 1993; 52: 89-90.
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**AUTHOR'S REPLY:** We read Dr Guslandi's letter with interest and wish to make the following points:

1 Although he rightly points out that we have shown no overall significant difference in the prevalence of endoscopic lesions between patients receiving non-steroidal anti-inflammatory drugs (NSAIDs) alone, or together with gold, the prevalence of ulcers was different between the two groups. Superficial gastric erosions are commonly

found in the group of patients that we examine by endoscopy, but there is no evidence that these erosions progress to ulcers, or cause serious ulcer complications, such as perforation.

2 There is still considerable controversy about the precise role of *H pylori* in mediating NSAID related damage. A recent leader from our group considered this controversy in some detail.<sup>1</sup>

3 We certainly have not advocated the widespread use of gold as a means of prophylaxis of NSAID gastropathy, and our editorial highlights an interesting effect of gold on NSAID gastropathy, the mechanisms of which have still to be elucidated.

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## Correction

**Acknowledgments to assessors in 1992**  
(*Ann Rheum Dis* 1993; 52: 248)

We regret that owing to the idiosyncrasies of the fax machine the following names were omitted from the list of assessors:

Holt M	Morris C J
Hopkinson N	Moskowitz R W
Hosking D	Murphy G
Humphrey M	Notarianni L

The editor would like to thank all the assessors for giving their time and help in 1992.