Effect of long term intramuscular gold therapy on the seroprevalence of Helicobacter pylori in patients with early rheumatoid arthritis

Helicobacter pylori is an important causative factor in chronic gastritis and peptic ulcer disease.1 Heavy metals such as bismuth salts are used to eradicate H pylori infection,2 but intramuscular gold and sulphasalazine are other antirheumatic drugs used in rheumatoid arthritis (RA), which do not appear to affect the prevalence of H pylori infection.4 The effect of gold treatment on H pylori in RA patients remains controversial.5-7 We therefore examined the long term effect of intramuscular gold on H pylori by measuring serum IgA and IgG antibodies to the organism in a prospective study of patients treated with early RA6 and without any previous antirheumatic treatment.

Initially, 87 patients with early RA (mean age 46.3 years, range 19–65; mean duration of disease 7–6 months, range 2–12) were attending a prospective three year follow up. Selection of the first disease modifying anti-rheumatic drug (DMARD) was adjusted to individual requirements. From the initial patient group of 87, we enrolled in the study five men and 15 women who were able to continue intramuscular gold throughout the three year follow up, and four men and 16 women who were treated with sulphasalazine during the corresponding period (table 1).

Samples for measuring circulating IgA and IgG antibodies to H pylori were taken at months 0, 9, and 36; concurrent use of non-steroidal anti-inflammatory drugs (NSAIDs), antiulcer drugs and antibiotics was recorded. IgA and IgG class antibodies to H pylori were measured by an enzyme immunoassay method8 (Pyloriset®EIA-A, Pyloriset®EIA-G, Orion Diagnostica, Espoo, Finland). The lower limits for increased titres (expressed as reciprocals) were 600 for both IgA and IgG antibodies.9 Statistical analysis was performed using the χ² test with Yates’ correction or Wilcoxon’s signed rank test and Student’s t test.

At entry to the study, no significant differences were found between the clinical data of the two groups of RA patients was observed (data not shown). None of the patients had symptoms of peptic ulcer and none used antacid drugs during the three year follow up. Short term antibiotic treatment, mostly for upper respiratory infections, was used by 10% of patients in both groups during the follow up.

At month 0, before gold or sulphasalazine treatment started, 32% (13/40) of patients showed serological evidence of H pylori infection (IgG positive). Initially, more patients who subsequently received gold treatment had serological evidence of H pylori infection than was observed among those treated with sulphasalazine (table 2). In the subgroup of patients seropositive for H pylori, one patient with gold therapy showed a significant decline (more than 50%) of both IgA and IgG anti-H pylori titres at 36 months, indicating eradication of the H pylori bacteria, but none of the patients in the sulphasalazine group exhibited such a decline.

In an earlier report, RA patients who underwent at least six months of intramuscular gold treatment showed lower IgA and IgG antibody titres against H pylori compared with RA patients receiving anti-malarial drugs.5 In contrast, in a study of 17 unselected RA patients, no reduction in H pylori seroprevalence was found in patients treated with gold compounds.6 Recently, intramuscular gold therapy for 12 months was not found to influence the serological markers for H pylori infection;10 our data from this three year follow up confirm this finding. No clinical evidence was observed in favour of a relationship between H pylori seropositivity and NSAID induced gastric damage.

Ventral fracture induced by chronic contained rupture of aortic aneurysm

We report an exceptional case of a ventral fracture. A 64 year old man had attended our rheumatology clinic since 1982 for idiopathic osteoporosis. He had multiple vertebral fractures (D7 and D8 in 1982, L1 in 1983 and L2 in 1991). In January 1992 he presented with acute lumbar pain, radiating to the right leg. A non-pulsatile abdominal mass was palpable and peripheral pulses were absent. Neurological examination was normal and laboratory results unremarkable. However, a new fracture of L4 and an abdominal soft tissue mass were noted on radiography (figure). Computed tomography (CT) scan revealed a chronic contained aortic aneurysm 17 cm in diameter extending from the level of L1 to L4. Compressed of the inferior vena cava, displacement of the right kidney, atrophy of the right psoas and extrinsic compression of the L4 thecal space with crush fracture were seen. L4 radiculopathy was documented on EMG.
The patient underwent aortoiliac bypass surgery and anterior fixation of L4. He has since remained asymptomatic, receiving calcium therapy.

In male osteoporosis an underlying cause is found in almost 60% of patients. The case we present suggests that presence of an aneurysm is an additional factor in the pathogenesis of vertebral fracture in men which has hitherto been unrecognised.

It is well known that aortic aneurysms may present with an acute abdominal rupture. However, since the advent of CT scanning, chronically contained aortic aneurysms have been recognised. They result from a posterior leak of the aorta contained by surrounding retroperitoneal tissues such as the vertebral body, psoas muscle, and posterior renal fascia. These chronic, contained ruptured aneurysms represent only about 4% of all ruptured aortic aneurysms. Up to 25% of them are associated with vertebral erosions, usually limited to the T12-L3 region, whereas only 2% of uncontained aneurysms have associated vertebral erosions. Other medical complications of contained aneurysm are obstructive jaundice or femoral neuropathy. It has been suggested that the erosions of the anterior margin of the vertebral body result from repetitive compression caused by chronic leakage of blood from the aortic aneurysm. The present case demonstrates that these erosions may lead to vertebral collapse. It is likely that the pre-existing osteopenia in our patient contributed to the fracture.

In conclusion, the presence of a contained aneurysm should be considered in male patients presenting with vertebral fracture.

A BOONEN
B GHESQUIERE
R WESTBOVEN
P GEUSENS
J DEQUEKER
Department of Internal Medicine, Division of Rheumatology, University Hospitals, Katholieke Universiteit Leuven, Belgium

S BOONEN
Department of Internal Medicine, Division of Geriatric Medicine

Correspondence to: Dr Steven Boonen, Department of Internal Medicine, Division of Geriatric Medicine, U.Z. Leuven, Brusselsstraat 67, B-3000 Leuven, Belgium.

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A Boonen, B Ghesquiere, R Westhovens, P Geusens, J Dequeker and S Boonen

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