

## Improved bone mineral density with alendronate in primary biliary cirrhosis patients

Numerous studies have established a link between primary biliary cirrhosis (PBC) and loss of bone mass; however, a specific treatment regimen to improve bone mineral density (BMD) in such patients has yet to be established. Alendronate, a bisphosphonate effective in improving the BMD of postmenopausal women, has yet to be widely investigated in PBC patients. Zein and colleagues therefore conducted a randomized, placebo-controlled trial to evaluate the efficacy of alendronate in improving the BMD of PBC patients.

The trial enrolled 34 PBC patients (32 postmenopausal women and 2 men), with a mean age of 61 years, who were randomly assigned 1:1 to receive either oral alendronate 70 mg/week or placebo, for 1 year.

Patients in the alendronate group showed significantly greater improvement in BMD, compared with the placebo group, at 1 year of follow-up. The improvement was greater than that observed in previous studies. Markers of bone formation and resorption decreased significantly with alendronate compared with placebo; however, the decrease was less than expected from previous studies. The presence of advanced liver disease in over half of the alendronate patients might have affected the accuracy of these markers. The rate of adverse events did not differ significantly between the treatment and placebo groups; hepatotoxicity caused by alendronate was not observed, although the study was too small to evaluate adverse events conclusively.

The authors conclude that alendronate is well tolerated and effective in increasing the BMD of PBC patients, and call for studies involving a larger patient population.

Katy Cherry

**Original article** Zein CO *et al.* (2005) Alendronate improves bone mineral density in primary biliary cirrhosis: a randomized placebo-controlled trial. *Hepatology* 42: 762–771

## Does antibiotic prophylaxis benefit all patients undergoing PEG?

Current guidelines recommend routine antibiotic prophylaxis to reduce the incidence of infection associated with percutaneous endoscopic

gastrostomy (PEG), an intervention that facilitates nutritional support of patients unable to feed adequately by mouth. Results of previous studies are mixed, however, and some have shown no benefit for prophylactic antibiotics.

Saadeddin *et al.* suggest that this contradiction might be due to heterogeneity of patient groups; infection rates associated with PEG are known to be higher for patients with malignant conditions. Their prospective, double-blind, randomized, controlled study aimed to determine whether prophylactic antibiotic treatment conferred a benefit on patients undergoing PEG for nonmalignant conditions.

In all, 99 patients were included in the analysis, 51 of whom received a single dose of antibiotics selected according to British Society of Gastroenterology guidelines (either 2.2 g co-amoxiclav,  $n=43$ ; or 2 g cefotaxime,  $n=8$  penicillin-allergic patients), and 48 of whom received placebo. The groups were similar in demographics and indications for PEG. Peristomal and systemic infection rates were significantly lower in the antibiotic-treated group ( $P=0.001$  and  $P=0.0238$ , respectively). The most common organism isolated from peristomal swabs (from 9 patients, all in the placebo group) was methicillin-resistant *Staphylococcus aureus*; the antibiotic treatment regime used would not be expected to prevent these infections, but the patients' baseline status for this organism was unknown. These results support the use of antibiotic prophylaxis in patients with nonmalignant conditions undergoing PEG, say the authors.

Caroline Barranco

**Original article** Saadeddin A *et al.* (2005) Antibiotic prophylaxis for percutaneous endoscopic gastrostomy for non-malignant conditions: a double-blind prospective randomized controlled trial. *Aliment Pharmacol Ther* 22: 565–570

## Endoscopic therapy reduces recurrent hemorrhage in peptic ulcers with adherent clots

The appearance of a peptic ulcer on endoscopy can give important prognostic information and influence the decision as to whether endoscopic therapy or medical treatment is required. Although the best course of treatment is straightforward in cases of low-risk, clean ulcers and high-risk, actively hemorrhaging ulcers, the treatment of intermediate-risk ulcers