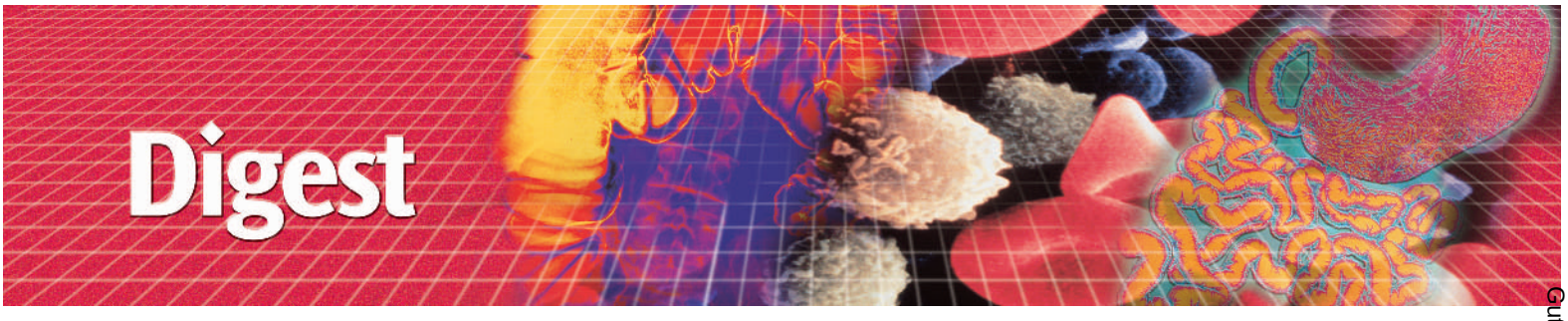

Robin Spiller and Emad El-Omar, *Editor and Deputy Editor*

CURRENT CONCEPTS IN THE MANAGEMENT OF *HELICOBACTER PYLORI* INFECTION: THE MAASTRICHT III CONSENSUS REPORT

H pylori eradication is of value in chronic NSAID users but is insufficient to prevent NSAID related ulcer disease completely.

- 1. In naïve NSAID users *H pylori* eradication may prevent peptic ulcer and bleeding.
- 2. In patients receiving long term NSAIDs and with peptic ulcer and/or ulcer bleeding, PPI maintenance treatment is better than *H pylori* eradication in preventing ulcer recurrence and/or bleeding.
- 3. Patients who are receiving long term aspirin who bleed should be tested for *H pylori* and, if positive, receive eradication therapy.

Well, it's finally out! The European Helicobacter Study Group has previously produced two consensus reports, the last being in 2000. The Third Maastricht Consensus Conference was convened to update guidelines on the management of *Helicobacter pylori* infection. Fifty experts from 26 countries, including primary care physicians, were involved in formulating the consensus held in March 2005. Three major workshops dealt with indications and contraindications for eradication, focusing on dyspepsia, non-steroidal anti-inflammatory drugs or aspirin use (see fig), gastro-oesophageal reflux disease and extraintestinal manifestations of the infection. Other issues included diagnostic tests, treatment of infection, prevention of gastric cancer and other complications. This report provides updated recommendations for the management of most aspects of *H pylori* infection and will be of great help to many practising clinicians in most countries. Perhaps the most exciting conclusion of the report is that eradication of *H pylori* infection has the potential to reduce the risk of gastric cancer development.

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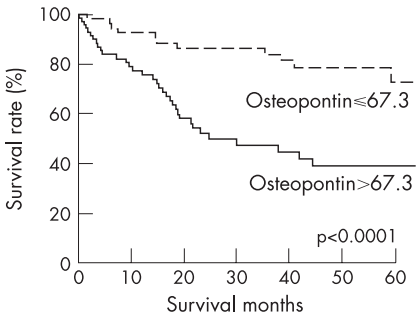

Kaplan–Meier estimates of survival for patients with different plasma osteopontin (OPN) levels.

ELEVATED PLASMA OSTEOPONTIN ASSOCIATED WITH GASTRIC CANCER DEVELOPMENT, INVASION AND SURVIVAL

Osteopontin (OPN) is a secreted adhesive phosphoglycoprotein which is a valuable diagnostic and prognostic biomarker for a variety of malignancies. Wu *et al* evaluated the usefulness of plasma OPN level for predicting gastric cancer development, invasion and survival. They studied gastric expression of OPN in 132 patients with gastric cancer and 93 healthy controls. They also measured plasma levels of OPN by ELISA and correlated these with gastric cancer development, clinicopathological features and outcomes. Expression of OPN mRNA was significantly higher in gastric cancer tissues compared with non-tumour tissues, the median plasma OPN level was significantly higher in patients than in controls ($p<0.0001$) and significantly higher in patients with advanced stages, serosal invasion, lymph node metastasis, lymphatic invasion, venous invasion and liver metastasis. Logistic regression showed that a high plasma OPN level (>67.3 ng/ml) was significantly associated with these same unfavourable clinicopathological features. Plasma OPN level demonstrated significant association with patient survival ($p<0.0001$) (see fig). The authors conclude that plasma OPN level may be a useful diagnostic and prognostic marker for gastric cancer.

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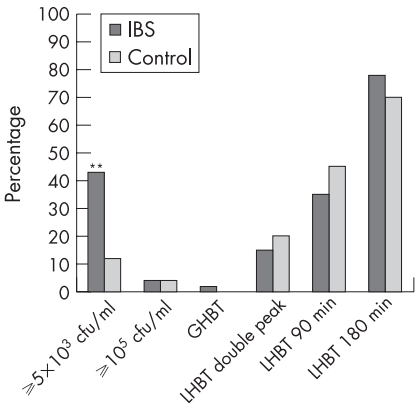

Percentages of patients with tests indicating altered small-bowel flora according to the different diagnostic methods and definitions used.

DO PATIENTS WITH IRRITABLE BOWEL SYNDROME HAVE SMALL BOWEL BACTERIAL OVERGROWTH?

There have recently been several reports of the use of antibiotics to treat small bowel bacterial overgrowth (SIBO) in irritable bowel syndrome (IBS) based on a supposedly abnormal lactulose breath hydrogen test (LBHT). This issue of *Gut* has a more definitive study of the incidence of SIBO in 162 patients with IBS. The authors combined intestinal manometry and jejunal aspirate and in some cases LBHT. They found just 7 of the 162 had SIBO (4%) using the conventional "gold standard" of $>10^5$ colony forming units (cfu)/ml. Of these seven patients, six showed enteric dysmotility, with a reduction in migrating motor complex frequency, so the diagnosis of irritable bowel syndrome is probably not correct. Fifteen patients with IBS had abnormal LBHT, but none had $>10^5$ cfu/ml in jejunal aspirates and the incidence of abnormal LBHT was no different between patients with IBS and controls (see fig). This study suggests that LBHT is flawed as a test of SIBO and provides no definite support for the idea that patients with IBS should be treated with antibiotics.

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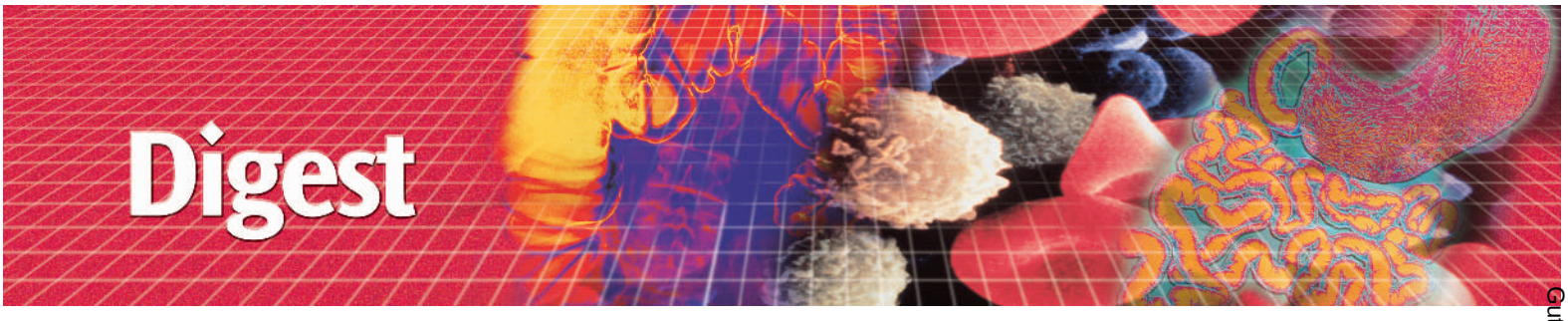
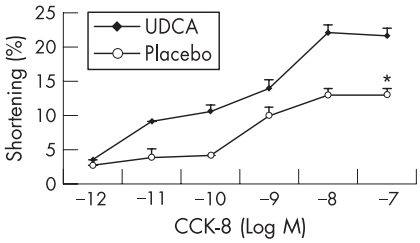
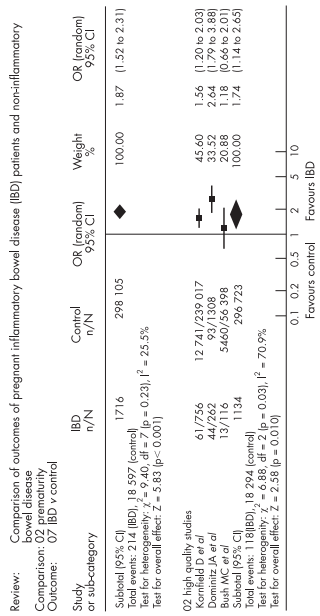
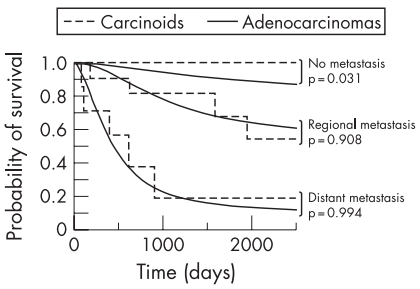




Ursodeoxycholic acid (UDCA) increases contraction of dissociated gall bladder muscle cells in response to cholecystokinin (CCK).



Risk of premature birth in patients with inflammatory bowel disease vs controls.



Cancer-specific survival of patients with colorectal carcinoids and those with adenocarcinomas.

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MULTIPLE BENEFITS OF URSODEOXYCHOLIC ACID IN SYMPTOMATIC GALLSTONES

Laparoscopic cholecystectomy has revolutionised the treatment of symptomatic gallstones, but there still remain a few patients unsuitable for surgery for whom medical treatment may have a role. Ursodeoxycholic acid (UDCA) has been reported to reduce symptoms and this study set out to understand why. Fifteen patients were randomised to UDCA or placebo for four weeks prior to cholecystectomy. Patients with gallstones are known to show impaired response to G protein coupled agonists, possibly because of increased membrane cholesterol which localises in lipid rafts (caveolae) and sequests membrane receptors for agonists like cholecystokinin (CCK) and acetylcholine (ACh). The authors assessed muscle contraction induced by CCK-8 and ACh in muscle cells from the resected gall bladders: Those on UDCA had significantly increased gall bladder muscle cell contraction and reduced muscle plasma membrane cholesterol. The authors conclude that UDCA improves gall bladder muscle contractility by decreasing cholesterol content of the muscle cell plasma membranes and also reducing oxidative stress.

see p 815

WHAT IS THE EFFECT OF INFLAMMATORY BOWEL DISEASE ON PREGNANCY?

The young age of onset of inflammatory bowel disease (IBD) means that clinicians are often asked this question. This meta-analysis, which looked at a total of 3907 pregnant patients with IBD (Crohn's 1952 (63%), ulcerative colitis 1113 (36%)) and 320 531 controls, provides some fairly definitive, and hence useful, statistics. The authors found a significant (95% CI 1.5 to 2.3) 1.9-fold increase in incidence of prematurity (<37 weeks' gestation) compared with controls. Furthermore, the risk of producing an underweight baby (<2500 g) is doubled and the chance of caesarean section increased 1.5-fold. More disturbingly, the risk of congenital abnormalities was increased 2.4-fold (95% CI 1.47 to 3.82). There was no evidence of publication bias and no evidence that more recent studies or larger studies gave any different results. The authors rightly conclude that pregnancies in patients with IBD should be treated as high risk. We obviously need more information as to specific risk factors, including any possible treatment effects, to be able to reduce the increased risk to pregnancy that IBD poses.

see p 830

PROGNOSIS AND RISK FACTORS OF METASTASIS IN COLORECTAL CARCINOIDS: RESULTS OF A NATIONWIDE REGISTRY OVER 15 YEARS

Colorectal carcinoid tumours are often regarded as low-grade malignant lesions, even in the presence of metastasis. There are no definitive data comparing survival of patients with colorectal carcinoids with those with adenocarcinoma and there is no global consensus on determinants of metastasis in these tumours. Utilising the Multi-Institutional Registry of Large-Bowel Cancer in Japan, Konishi *et al* extracted data on all patients diagnosed as having colorectal carcinoids between 1984 and 1998. The authors identified 345 patients with colorectal carcinoids (247 underwent surgery) among 90 057 patients with colorectal tumours. Risk factors for lymph node metastasis were tumour size >11 mm and lymphatic invasion, whereas those for distant metastasis were tumour size >21 mm and venous invasion. Patients with colorectal carcinoids and without these risk factors exhibited no lymph node metastasis or distant metastasis. Cancer-specific survival of patients with colorectal carcinoids without metastasis was better than those with adenocarcinomas. However, survival was similar whether the tumours had lymph node metastasis or distant metastasis (see fig). The authors conclude that tumours ⩽10 mm and without lymphatic invasion could be curatively treated by local resection, but others would need radical lymph node dissection.

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