

They call for further studies, with longer follow up, to confirm their findings.

Original article Fischbach W *et al.* (2007) Most patients with minimal histological residuals of gastric MALT lymphoma after successful eradication of *Helicobacter pylori* can be managed safely by a watch and wait strategy: experience from a large international series. *Gut* 56: 1685–1687

Use of PPI therapy is associated with an increased risk of bacterial gastroenteritis

People in the general population commonly use PPIs and H₂-receptor antagonists (H₂RAs) to suppress gastric acid secretion. Gastric acid is, however, a normal defence mechanism against gastrointestinal infections, and suppression of its secretion could be expected to increase the risk of bacterial gastroenteritis. While there is some evidence that the use of such agents makes infection by *Clostridium difficile* more likely, data on the risk of other infections are scarce.

García Rodríguez *et al.* carried out a large case-control study to assess whether people taking acid suppressants were at increased risk of bacterial gastroenteritis. The researchers identified 6,141 patients aged 20–74 years who had suffered an episode of acute bacterial gastroenteritis and investigated their use of acid suppressants. Findings were compared with those for a closely matched control group who had not reported bacterial gastroenteritis.

Statistical analysis revealed that current use of PPIs (omeprazole and lansoprazole) definitely increased the risk of bacterial gastroenteritis but that current use of H₂RAs (cimetidine and ranitidine) had no effect. The risk of bacterial gastroenteritis with PPI use was related to dose, but not treatment indication. *Campylobacter* and *Salmonella* species were largely responsible for the gastroenteritis episodes; clostridium gastroenteritis cases were rare, occurring in only 31 participants.

The authors conclude that gastric acid suppression induced by PPIs, but not by H₂RAs, is associated with an increased risk of salmonella and campylobacter enteric infections. They suggest that this is consistent with the role of gastric acid as a defense mechanism.

Original article García Rodríguez LA *et al.* (2007) Use of acid-suppressing drugs and the risk of bacterial gastroenteritis. *Clin Gastroenterol Hepatol* 5: 1418–1423

LSTC is a feasible alternative to open cholecystectomy

During the past 20 years, laparoscopic cholecystectomy has largely replaced open cholecystectomy as the standard treatment for symptomatic gallstones. In either technique, the surgeon must safely dissect the structures in Calot's triangle, but this dissection is difficult if inflammation or other complications are present. Traditionally, patients presenting with such complications have been given an open cholecystectomy as a matter of course, but several studies have suggested that laparoscopic subtotal cholecystectomy (LSTC) is better.

In a prospective study of 889 cholecystectomies carried out at a UK general hospital between 2003 and 2005, Sinha *et al.* assessed the use of LSTC without cystic duct dissection or ligation, which avoids all dissection in Calot's triangle. The authors compared the safety of LSTC with standard laparoscopic cholecystectomy and investigated the effect on conversion rates to open surgery.

Of the 889 laparoscopic cholecystectomies, 28 were LSTCs without cystic duct ligation. Surgery lasted 90 min on average, and patients were in hospital for a mean of 3 days. Two patients had short-term bile leaks, which resolved spontaneously, and three required later extraction of bile duct stones and stent insertion for persistent bile leaks. All five bile leaks had been expected from intraoperative observations and were readily managed.

The use of LSTC successfully reduced conversion rates to open surgery from 5.0% in the period 1997–2002 to only 0.3% in 2005. The authors conclude that, in patients with complications that make dissection of Calot's triangle problematic, LSTC without cystic duct ligation is a feasible alternative to open cholecystectomy.

Original article Sinha I *et al.* (2007) Laparoscopic subtotal cholecystectomy without cystic duct ligation. *Br J Surg* 94: 1527–1529

The diagnostic value of CT colonography after a positive fecal occult blood test

The advantages of detecting colon cancer at an early stage have led to the establishment of national fecal occult blood test (FOBT) screening programs in the UK and Australia. Patients with

a positive FOBT result are referred for colonoscopy, which puts great pressure on already stretched resources. As 80% of positive FOBT results are false, CT colonography (CTC) has been suggested as a less invasive alternative to colonoscopy.

To assess the value of CTC as a replacement test for colonoscopy in patients with a positive FOBT result, Walleser *et al.* performed a systematic review of five eligible studies to compare CTC with colonoscopy for sensitivity and specificity and to assess the cost-effectiveness of the two procedures. CTC detected 63% of lesions 10 mm or larger in diameter, but colonoscopy was significantly more sensitive, detecting 95% of such lesions. The specificity of colonoscopy was also higher at 99.8%, compared with 95% for CTC. Colonoscopy was more sensitive (96%) and more specific (99.7%) than CTC (89% and 96%, respectively) for detecting the presence of any cancerous lesion.

Taking costs into account, the authors conclude that CTC is, overall, less effective, less accurate and more costly than colonoscopy in patients with a positive FOBT, primarily owing to better accuracy with colonoscopy. They suggest, however, that the use of CTC has future potential as the technology is evolving and accuracy might improve.

Original article Walleser S *et al.* (2007) What is the value of computerized tomography colonography in patients screening positive for fecal occult blood? A systematic review and economic evaluation. *Clin Gastroenterol Hepatol* 5: 1439–1446

Repeat liver transplantation is possible in cases of aggressive HCV infection

Patients who develop recurring cholestatic HCV infection after liver transplantation often experience graft failure. Most transplant centers exclude such patients from repeat transplants because of their extremely poor prognosis; however, in this report, Kwo *et al.* describe two patients with an aggressive HCV infection whose second liver transplant proved successful due to the administration of interferon therapy during the course of surgery.

Both patients had developed a clinically aggressive HCV infection after the initial liver transplants. Infection in the first patient

developed when standard interferon and ribavirin therapy were discontinued due to non-response. The second patient developed HCV recurrence with cholestasis 2 months after an apparently successful graft. In both patients, after therapy with interferon α -2b and ribavirin, HCV was undetectable and repeat orthotopic liver transplantation was performed. Interferon α -2b was administered intravenously in both patients from the first incision to the end of surgery (4 h). This approach was intended to produce high serum interferon levels to prevent any possibility of HCV re-infection in the new graft. Both patients recovered well, and no evidence of recurrent viremia was reported at 36 and 24 months, respectively.

The authors conclude that aggressive therapy with interferon and ribavirin can achieve HCV RNA clearance in patients with cholestatic post-transplant HCV infection, enabling a successful repeat transplant. They recommend further investigation of the anhepatic administration of interferon to liver transplant patients at high risk of HCV recurrence who can clear virus before repeat transplantation.

Original article Kwo PY *et al.* (2007) Intravenous interferon during the anhepatic phase of liver retransplantation and prevention of recurrence of cholestatic hepatitis C virus. *Liver Transpl* 13: 1710–1713

Passive immunotherapy as a vaccine against hepatitis C

The diversity of HCV makes immunotherapy or vaccine design very difficult. Law *et al.* have identified broadly neutralizing antibodies from a human with hepatitis C and demonstrated their HCV-targeting activity in mice with a chimeric human–mouse liver.

Human monoclonal antibodies (mAbs), which showed binding specificity to three different antigenic regions on HCV E2 glycoprotein, were isolated. So-called antigenic region 3 (AR3)-specific antibodies were found to target more different strains of HCV *in vitro* than antibodies specific for antigenic regions 1 and 2. This observation suggests that AR3 is a highly conserved region, making it an ideal target for passive immunotherapy. To determine whether or not the AR3-specific antibodies could protect against HCV infection *in vivo*, they were given to mice genetically engineered to support a large population of human liver cells. Nine