

remaining. There was no change in clinical status or quality of life compared with study start, although reflux symptoms (heartburn scores) had improved. Even though endoluminal gastroplication with the ESD[®] was safe and easy to perform, Schiefke *et al.* recommend that this procedure is not used as a treatment for gastroesophageal reflux disease until further technical refinements allow sutures to be maintained in the long term.

Rebecca Doherty

Original article Schiefke I *et al.* (2005) Use of an endoscopic suturing device (the "ESD") to treat patients with gastroesophageal reflux disease, after unsuccessful EndoCinch endoluminal gastroplication: another failure. *Endoscopy* 37: 700–705

Potential new diagnostic tool for hepatobiliary cancers

Early-stage diagnosis of hepatobiliary cancers is currently limited—biliary cytology is unreliable, and detection of early-stage disease using imaging techniques is often difficult. *In vitro* studies of liver tissue by nuclear magnetic resonance (NMR) spectroscopy have previously demonstrated alterations in phospholipid metabolism in patients with cancer. This prospective, UK pilot study therefore used NMR spectroscopy to study phospholipid metabolism in bile as a potential diagnostic marker for hepatobiliary cancer.

Bile samples were collected from 25 individuals (13 with underlying primary or secondary malignancy and 12 with nonmalignant pathology) either via aspiration at endoscopic retrograde cholangiopancreatography or at laparoscopic cholecystectomy. All samples underwent proton (¹H) and phosphorus (³¹P) NMR analysis, although the ¹H spectra from two samples (one from each group) were uninterpretable and were therefore excluded from further analysis.

The authors found ³¹P spectra more straightforward to interpret than ¹H spectra, as they were not complicated by resonances from cholangiopancreatography contrast medium. Phosphatidylcholine levels were variable but significantly lower in bile from individuals with cancer than in bile from individuals without cancer. There are other potential causes for this reduction, however, which remain to be clarified, such as polymorphisms in the *ABCB4*

(previously *MDR3*) gene that is involved in phospholipid excretion, and reaction to radiotherapy. Although the ability of NMR spectroscopy to identify early-stage disease has not been specifically tested, these results are promising and the potential use of NMR spectroscopy as an adjunct to current diagnostic techniques is worthy of exploration.

Rebecca Doherty

Original article Khan SA *et al.* (2005) Proton and phosphorus-31 nuclear magnetic resonance spectroscopy of human bile in hepatopancreaticobiliary cancer. *Eur J Gastroenterol Hepatol* 17: 733–738

Low post-transplant immunosuppression possible in patients with hepatitis C

An Italian study has demonstrated that for patients infected with the hepatitis C virus (HCV) and undergoing liver transplant, pre-treatment with the polyclonal anti-T-cell antibody Thymoglobulin[®] (Genzyme Corporation, Cambridge, MA) provides good protection against rejection, allows lower doses of immunosuppressive medication to be used post-transplant and reduces viral load. Although research has previously demonstrated the effectiveness of Thymoglobulin[®] in reducing steroid dependence, until now its effect on HCV recurrence had not been explored.

The authors report the preliminary results of a retrospective investigation into the effect of a regimen of Thymoglobulin[®] induction with maintenance tacrolimus on 22 patients undergoing liver transplant for hepatitis-C-related cirrhosis. The control group consisted of 30 HCV-positive patients who opted out of the protocol; these patients received methylprednisolone at reperfusion, oral prednisolone tapered and discontinued 3 months from surgery, and maintenance tacrolimus.

Pretreatment with Thymoglobulin[®] allowed lower steroid doses to be used, with the tacrolimus dose being progressively reduced in around half of the patients without major rejection complications. Although recurrence rates did not differ significantly between groups (perhaps related to the use of steroids in the non-Thymoglobulin[®] group), the viral load was lower in the Thymoglobulin[®] group than in the non-Thymoglobulin[®] group. Disease recurred more quickly in