

## Narrow band imaging endoscopy shows promise in surveillance of Barrett's esophagus

Patients with Barrett's esophagus require surveillance to enable early detection of neoplastic lesions. Currently, such surveillance relies on magnifying chromoendoscopy, in which stains are sprayed onto the mucosa to reveal its morphology. Narrow band imaging (NBI) is a new technique that can visualize the whole esophagus. The mucosa is sequentially illuminated by precise wavelengths of red, blue, and green light that penetrate tissue to different depths. These three images are then integrated into a single, high-contrast image, which reveals mucosal vasculature as well as its surface morphology, without the need for stains.

Kara *et al.* evaluated 63 patients with Barrett's esophagus. NBI identified low-grade and high-grade intraepithelial neoplasia, and nondysplastic, specialized, intestinal metaplasia; nondysplastic areas had one of several regular, villous and/or gyrus-forming patterns with regular vasculature (80%), or a previously undescribed flat mucosa with normal-appearing, branched vasculature (20%). High-grade, intraepithelial neoplasia was characterized by irregular mucosal patterns, irregular vascular patterns, and abnormal blood vessels; all such areas had one of these features, and 85% had two or more. These features were absent from nondysplastic areas, but were present in 56% of low-grade intraepithelial neoplastic lesions. Importantly, there was close agreement between histopathologic and NBI findings in relation to suspicion for neoplasia.

The authors recommend that NBI surveillance of Barrett's esophagus should comprise classification of the mucosal pattern, assessment of the irregularity of the mucosal and vasculature patterns, and finally, assessment of blood-vessel abnormalities.

**Original article** Kara MA *et al.* (2006) Detection and classification of the mucosal and vascular patterns (mucosal morphology) in Barrett's esophagus by using narrow band imaging. *Gastrointest Endosc* **64**: 155–166

## Novel endoscopic delivery of biliary brachytherapy

Patients with cholangiocarcinoma generally have 5-year survival of <40% for resectable and <10%

for unresectable disease, and most present with unresectable disease. By contrast, the Mayo Clinic previously reported post-transplantation 5-year survival of 82% for patients with cholangiocarcinoma (their sequential treatment protocol comprised external-beam radiation therapy, radiation sensitization with 5-fluorouracil, low-dose-rate biliary brachytherapy and, for eligible patients, liver transplantation).

A new, retrospective, Mayo Clinic study demonstrates that low-dose-rate biliary brachytherapy can be administered by transpapillary insertion of a brachytherapy catheter, through an endoscope. The 32 patients (aged 31–81 years) with unresectable hilar cholangiocarcinoma underwent endoscopic, retrograde cholangiopancreatography, during which biliary stricture(s) were internally bridged with indwelling, plastic 10Fr stent(s). A brachytherapy catheter loaded with <sup>192</sup>Ir seeds embedded in plastic ribbon was passed through the endoscope and positioned within these stent(s) under fluoroscopic guidance (the catheter can also pass through an 8.5Fr stent). The endoscope was withdrawn and the free end of the brachytherapy catheter rerouted transnasally and secured. In seven patients (22%), catheter slippage necessitated its repositioning—Simmons and colleagues emphasize the importance of radiographic confirmation of correct catheter positioning during placement, after endoscope withdrawal, and after securing the catheter's free end.

This brachytherapy procedure has several advantages: it can be performed in the endoscopy suite, and does not require temporary nasobiliary tube placement, or cumbersome stent removal and replacement. Importantly, bilateral hepatic ducts can be treated simultaneously while maintaining biliary drainage, which is not possible with nasobiliary tubes.

**Original article** Simmons DT *et al.* (2006) A novel endoscopic approach to brachytherapy in the management of hilar cholangiocarcinoma. *Am J Gastroenterol* **101**: 1792–1796

## Post-ERCP-pancreatitis prophylaxis is cost-effective in high-risk patients

Endoscopic retrograde cholangiopancreatography (ERCP) is linked to postprocedure pancreatitis, although such pancreatitis occurs in only a small proportion of patients. Studies of pharmacologic prophylaxis for the prevention