PillCam® WCE is a feasible colorectal screening strategy for selected patients

Compliance with screening colonoscopy for colorectal cancer is poor, and wireless capsule endoscopy (WCE) is under investigation as an alternative strategy that might improve patients' acceptance of colorectal screening. Eliakim and colleagues' prospective, multicenter, proof-of-concept study compared WCE using the PillCam® Colon capsule (Given Imaging Ltd, Yoqneam, Israel) with conventional colonoscopy, for the detection of colonic pathology.

Evaluable results for both WCE and conventional colonoscopy (performed consecutively) were obtained from 84 patients (age range 26–75 years; 55 men) with indications for colonic endoscopy, from 3 centers in Israel. WCE and conventional colonoscopy identified 34 and 36 of 45 patients with polyps, and 14 and 16 of 20 patients with clinically significant pathology (at least one polyp of ≥6 mm in size, or ≥3 polyps of any size), respectively. No adverse events were associated with WCE; the capsule was excreted within 10 h in three-quarters of the patients and reached the rectosigmoid colon in the rest. Compared with conventional colonoscopy, however, false-positive WCE findings were recorded in one-third of patients.

Although removal of detected polyps is not possible during WCE, the authors suggest that PillCam® Colon WCE is feasible for initial screening of patients who are unwilling or unable to undergo conventional colonoscopy, or who have inadequate conventional colonoscopy results. Notably, there was evidence of a learning curve in reading the WCE videos (sensitivity improved from 56% to 76% and specificity from 69% to 100% when expert readers were used).

Original article Eliakim R *et al.* (2006) Evaluation of the PillCam colon capsule in the detection of colonic pathology: results of the first multicenter, prospective, comparative study. *Endoscopy* **38:** 963–970

New technique improves ulcer healing after esophageal ESD

Endoscopic submucosal dissection (ESD) can remove large esophageal lesions in one procedure, but epithelial loss creates an ulcer. Ulcer healing can cause esophageal scarring and stenosis, which requires repeated balloon dilation or stenting and impairs patients' quality of life. Ohki and colleagues report that ESD combined with transplantation of autologous cell sheets derived from buccal epithelium markedly improved ulcer healing in a canine model.

Ohki and colleagues treated six male, 1-year-old dogs with ESD, to create an ulcer 5 cm long and half the internal circumference of the distal esophagus. Three controls received ESD only; in the other three dogs ESD was immediately followed by transplantation of two 24 mm^2 epithelial cell sheets per ulcer, cultured from a previously harvested 10 mm^2 buccal epithelial cell biopsy. Cell sheets were attached to the wound with 10 min of gentle pressure from the endoscope, without sutures or clips.

The cultured cell sheets were thinner than native epithelium, but possessed histologic features of normal esophageal epithelium. By 8 days after treatment, transplanted epithelium covered most of the ulceration. By 4 weeks after transplantation, the wounds were completely covered with an intact, mature epithelium that resembled normal esophageal epithelium, whereas the wounds of control animals were still healing.

Ohki and colleagues now plan to use their technique to treat patients with early esophageal carcinoma. They note that their technique could broaden the applicability of ESD to other conditions, such as Barrett's esophagus.

Original article Ohki T *et al.* (2006) Treatment of oesophageal ulcerations using endoscopic transplantation of tissue-engineered autologous oral mucosal epithelial cell sheets in a canine model. *Gut* **55:** 1704–1710

CARD15 variants predict small-bowel stenosis in Crohn's disease

CARD15 influences susceptibility to Crohn's disease, but the extent to which *CARD15* genotyping can provide useful information that could change patients' treatment remains unclear. One *CARD15* variant, c.3019_3020insC (which encodes a truncated protein) has previously been associated with fibrostenotic