

41.8% of examinations were normal. The commonest finding in patients with IDA was angiodysplasia (19.9%). 59.5% of patients with obscure overt GI blood loss had positive findings. (Active bleeding (24.3%), Vascular lesion (5.4%), polyp (10.8%), NSAID enteropathy (2.7%), and gastritis (2.7%)). Crohn's disease was identified in 5.8% of all cases and in 13.8% of cases referred for assessment of suspected Crohn's disease. 4.6% of patients with IDA had findings consistent with Crohn's disease.

Further investigation was advised in 36.7%. In 35.9% of those patients, the major abnormality identified for which a further procedure was required was located within the reach of a gastroscope. In those with IDA, gastroscopy was recommended in 22.7% of cases. Gastroscopy was recommended in a smaller proportion of patients (4.4%) having CE for other indications.

A repeat procedure with bowel cleansing agents was required because of poor views in 1.6% of procedures.

Capsule retention occurred in 2 of 186 patients (1.1%) for whom retention data was available. Prior small bowel imaging had not demonstrated a stricture in either case. Endoscopic removal of the capsule was successful in both patients. The cause of capsule retention was Crohn's disease in one and NSAID enteropathy in the other.

**Conclusion** Adequate diagnostic images were obtained in > 98% of patients without the administration of bowel cleansing agents. The yield of positive findings from capsule endoscopy is high, but a significant proportion of lesions are within the range of a gastroscope, especially in patients with IDA. We recommend that patients undergo at least two gastroscopies prior to CE. CE is a safe procedure. Capsule retention was reported with a similar frequency to that reported in other case series. Patients should be advised that normal small bowel radiology may not exclude a significant stricture.

**Disclosure of Interest** None Declared

#### PTU-044 JOINT ENDOSCOPIC/LAPAROSCOPIC PROCEDURES FOR MANAGEMENT OF COMPLEX COLONIC POLYPS

doi:10.1136/gutjnl-2013-304907.136

<sup>1</sup>E Wesley, <sup>2</sup>N L Bullen, <sup>3</sup>N J Smart, <sup>3</sup>S D Mansfield, <sup>1</sup>T Shirazi. <sup>1</sup>Gastroenterology; <sup>2</sup>Surgery, Royal Devon and Exeter Hospital, Exeter, UK

**Introduction** Polypectomy during colonoscopy can be challenging and is potentially dangerous. Patients with particularly challenging polyps have been traditionally referred for segmental colectomy.

Laparo-endoscopic resection (LER) has been found to be safe and effective in other centres<sup>1,2</sup>. Laparoscopic mobilisation of the colon for endoscopic sub-mucosal resection (EMR) has the potential to assist with the removal of complex polyps and can allow immediate management of complications.

We implemented a pathway for patients who would previously have been offered segmental resection to undergo colonoscopy in theatre under general anaesthetic (GA) by an expert colonoscopist with a laparoscopic colorectal surgeon present to assist with laparoscopic mobilisation or proceed to segmental colectomy if required.

Our aim was to assess the safety and feasibility of this new service and to compare our results to published data.

**Methods** Cases were collected prospectively from February 2010 to September 2012.

Data on patient demographics, indication, lesion site and size, index colonoscopist, LER surgeon and endoscopist, procedural details, length of hospital stay, completeness of endoscopic resection and complications were collected retrospectively by two independent investigators.

**Results** 25 patients, (17 male) underwent GA colonoscopy in theatre for 26 polyps. Polyp size estimation at initial colonoscopy ranged from 10–50mm, median 25mm. 15 polyps were in the right colon.

8 (32%) required segmental colectomy: 5 lesions appeared malignant, 1 was too large, 1 and 2 technically impossible to resect. 2 cases required laparoscopic mobilisation of the colon to aid EMR.

15 patients (60%) avoided any abdominal surgical intervention.

Median length of hospital stay was 1 day.

2 patients had significant post-operative bleeding (1 EMR, 1 port-site). 1 patient developed a collection after laparoscopic resection which required radiological drainage. 1 EMR patient had polyp cancer with inadequate resection margins and required subsequent laparoscopic resection.

**Conclusion** Although the number of patients is relatively small, the pathway is a safe and feasible way to reduce the need for colonic resection for complex polyps. A significant number of patients avoided the need for segmental resection, and most did not require any laparoscopic assistance.

**Disclosure of Interest** None Declared

#### REFERENCES

- Franklin, M.E., Jr., *et al.* Laparoscopically monitored colonoscopic polypectomy: an established form of endoluminal therapy for colorectal polyps. *Surgical endoscopy* **21**, 1650–1653 (2007).
- Wood, J.J., Lord, A.C., Wheeler, J.M. & Borley, N.R. Laparo-endoscopic resection for extensive and inaccessible colorectal polyps: a feasible and safe procedure. *Annals of the Royal College of Surgeons of England* **93**, 241–245 (2011).

#### PTU-045 DIAGNOSTIC UTILITY OF SINGLE-USER PERORAL CHOLANGIOSCOPY FOR INDETERMINATE BILIARY STRICTURES IN SCLEROSING CHOLANGITIS

doi:10.1136/gutjnl-2013-304907.137

<sup>1</sup>E Kalaitzakis, <sup>2</sup>R Sturgess, <sup>2,3</sup>H Kaltsidis, <sup>4</sup>K Oppong, <sup>2</sup>V Lekharaju, <sup>1</sup>P Bergenzaun, <sup>3</sup>P Vlavianos, <sup>5</sup>H Sharma, <sup>3</sup>D Westaby, <sup>5</sup>G J Webster. <sup>1</sup>Department of Gastroenterology, Skåne University Hospital, Lund, Sweden; <sup>2</sup>Department of Gastroenterology, Aintree University Hospital, Liverpool; <sup>3</sup>Department of Gastroenterology, Imperial College Healthcare NHS Trust, London; <sup>4</sup>Department of Gastroenterology, Freeman Hospital, Newcastle; <sup>5</sup>Department of Gastroenterology, University College Hospital, London, UK

**Introduction** Single-user peroral cholangioscopy (SOC) has been reported to be useful in the differential diagnosis of indeterminate biliary lesions, but its diagnostic utility in sclerosing cholangitis (SC) has not been evaluated.

**Methods** Fifty-one consecutive patients with sclerosing cholangitis (47 primary SC; 4 IgG4-related cholangitis), who underwent 54 attempted SOC procedures due to indeterminate biliary strictures, in 4 UK and 1 Swedish tertiary referral centres in 2008–2012, were retrospectively enrolled. Brush cytology or SOC-directed biopsies were obtained as clinically indicated. The operating characteristics of SOC for detecting cancer were calculated using a composite reference standard (incl. surgical confirmation, tissue sampling, follow-up). For each SOC procedure in SC, another one attempted due to an indeterminate biliary stricture in patients without SC in the same centre and calendar year was randomly selected as control.

**Results** The Spyglass™ cholangioscope could be successfully inserted in the bile duct less frequently in SC compared to controls (83% vs 96%,  $p = 0.05$ ), but the two groups did not differ in the mucosal visualisation success rate (93% vs 94%). SOC-directed biopsies were more commonly performed in SC vs controls (83% vs 61%,  $p = 0.02$ ) but the rate of adequate samples did not differ significantly (67% vs 77%,  $p = 0.2$ ). The sensitivity, specificity and accuracy of SOC with/without tissue sampling for cancer diagnosis were similar in the 2 groups (intention-to-diagnose; table). The SOC diagnosis rate of malignant lesions was also similar in SC vs controls (50% vs 55%,  $p > 0.05$ ). Adverse events were more common in SC, mainly due to an increased frequency of cholangitis (table). No severe adverse events were observed.