Methods Consecutive patients attending a tertiary referral centre for clinically indicted endoscopic examination were prospectively recruited between August and December 2011. Sex, age, body mass index (BMI) and previous endoscopy experience were recorded. Procedural completion time, quality of bowel preparation and endoscopic findings were also documented. Patients were asked to grade anticipated and actual procedural discomfort and distress scores using a previously validated Numeric Rating Scale ranging form 0-10 as well as being asked to complete a Hospital Anxiety and Depression Scale. Patients also provided qualitative data, providing insights into their perceptions on perceived distress or discomfort. Data were analysed using SPSS version 19 with T-test analysis undertaken.

Results 271 patients were prospectively recruited (127 male, 144 female; median 56 years, range 17–89 years). Of these, 124 patients had a gastroscopy, 116 underwent colonoscopy and 31 had flexible sigmoidoscopy examinations. 34 patients (12.5%) underwent bi-directional endoscopy. Analysis showed that discomfort scores were significantly higher in patients undergoing colonoscopy compared to gastroscopy (4.65 vs 2.90, $p<0.001$) and also when comparing flexible sigmoidoscopy to gastroscopy (4.10 vs 2.90, $p=0.047$). No difference was identified when comparing flexible sigmoidoscopy discomfort levels to colonoscopy ($p=0.365$). Interestingly, while discomfort scores were significantly lower in the gastroscopy group, overall distress levels were significantly higher in this group compared to the colonoscopy group (3.99 vs 3.16, $p=0.049$). Data provided from the qualitative analysis would suggest that this is primarily due to the distress caused by oesophageal intubation.

Conclusion This is the first study to discriminate between distress and discomfort in endoscopic procedures and highlights variations in tolerability dependent on the underlying procedure undertaken. Our observations provides evidence to suggest greater attention should be made by endoscopists during oesophageal intubation during gastroscopy and with regards to gas insufflation during lower gastrointestinal endoscopic examinations.

Competing interests None declared.

OC-146 OUTCOME OF ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD) FOR SUPERFICIAL OESOPHAGEAL NEOPLASM: A UK PILOT SERIES

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Introduction In Japan endoscopic submucosal dissection (ESD) is accepted as a safe and effective treatment for early oesophageal cancer. Experience in the UK remains limited and oesophagectomy is still the gold standard. The aim of this prospective single centre pilot study was to evaluate the safety and clinical outcomes of oesophageal ESD in a UK setting.

Methods Between July 2008 and November 2011 the regional upper GI MDT for North Wales and Cheshire considered 14 patients with early oesophageal cancer (T1N0M0) (n=11) and high grade dysplasia (n=3) for ESD after full staging. All patients underwent trimodal endoscopy (autofluorescence, narrow band imaging, magnification, and chromoendoscopy) to assess the lesion and depth of invasion. Informed consent was obtained after full discussion and counselling as to alternative treatment options. Standard ESD technique was used, whereby the lesion was isolated by circumferential cutting using a flush and IT2 knife after marking the edges and raising with submucosal injection; followed by dissection. Specimens were staged according to the Kikuchi classification. Patients with residual Barrett's (n=5) had radio-frequency ablation after ESD to reduce the risk of metachronous cancer. Data were collected prospectively and audited by an independent group.

Results Of the 14 cases (nine male, five female; mean age 73 years), two were excluded as trimodal endoscopy showed evidence of deep submucosal infiltration and one patient declined treatment. Mean specimen size was 16 mm. Procedure time ranged from 120 to 210 min. Enbloc resection rate was 91%. R0 resection rate of the lateral and deep margins were 82% and 64% respectively (Abstract OC-146 table 1). There were no major complications, although one procedure was abandoned as the endoscopic field of view was obscured by bleeding. Mean hospital stay was 72 h. Procedure and disease specific mortality was zero. Over a median follow-up period of 20.5 months there was one recurrence. This occurred in a patient with incomplete resection of both lateral and deep margins at ESD. Those with R1 resection of the deep margins showed no evidence of recurrence.

Abstract OC-146 Table 1 Complete resection and complication rates of endoscopic submucosal dissection

	n (%)
ESD	11
Enbloc resection rate	10 (91)
R0 lateral margin	9 (82)
R0 deep margin	7 (64)
Major complications	0
Minor complication (minor bleeding)	1 (9)
Disease specific mortality	0
Recurrence	1 (9)

Conclusion ESD is a safe and effective treatment with high cure rate for early oesophageal neoplasm, even when the endoscopist is in the steep part of the learning curve. ESD has the advantage of high enbloc resection rates and low risk of recurrence. In our opinion all patients in the UK with early oesophageal cancer and high grade dysplasia should have access to ESD as a standard treatment option.

Competing interests None declared.

OC-147 MULTICENTRE (CERT-N) AUDIT OF EXPERIENCE AND OUTCOMES OF ENDOSCOPIC BALLOON DILATATION TO TREAT CROHN'S DISEASE STRICTURES

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Introduction Strictures are a common complication of Crohn's disease (CD), both de novo and following surgery (Sx). While endoscopic balloon dilatation (EBD) offers a valuable alternative to Sx in managing them, there is paucity of data on factors that may influence the safety and efficacy of this technique. Our aim was to perform a multi-centre audit to determine our experience and outcomes of EBD in symptomatic CD strictures.

Methods A retrospective audit across three major hospitals in Northwest England was performed on patients between 1998 and 2011. Demographics, smoking status, immunomodulation, CRP, endoscopic findings, EBD details including complications and subsequent surgery at follow-up were all recorded. Success of EBD was defined as symptomatic improvement without need for surgery at follow-up.

Results Patient & Disease Demographics: 71 patients (43 female; age range 17–85 years, median 47) were audited. Duration of CD was

<1–64 years (median 17). 45% had smoking history. CD distribution and concomitant immunomodulation was heterogenous. 58 (82%) patients had previous surgery. 46 (65%) were ileo-colonic anastomotic strictures while rest had it de novo (nine colon only, six terminal ileum, six jejunum, three duodenum, one oesophagus and one small and colon). The disease activity at anastomosis was i0–14 (30%), i1, i2–25 (55%) and i3, i4–5 (11%) while two had no record. Disease in de novo stricture was mild—5 (20%), moderate—10 (40%) and severe—7 (28%) while three had no record. The stricture length were 0.5–7 cms (median 2). CRP at first EBD was between 2 and 188 (median 5). Procedure: Maximum diameters of first and subsequent EBD were similar, 10–20 mm (median 15). 60 were performed at colonoscopy and 11 were performed at enteroscopy. 177 (range 1–11, median 2) EBD over median 8.5 months (1–84) were carried out total 84 (range 1–5, median 1) strictures. Outcomes: There were no serious complications. Success at index EBD was 31% with another 37% achieving long-term symptomatic relief from further EBDs. 18 (25%) patients needed surgery and five were lost to follow-up. Time to surgery following first EDB was 1–59 months (median 16.5).

Conclusion EBD was safe and seemed fairly effective (68% cases) in achieving long-term symptom improvement and avoided the need for surgery in 75% of cases. Further large prospective trials with control groups (those going straight to surgery) are needed to evaluate effects of CD phenotypes, endoscopic techniques and patient factors to help identify those that would best achieve palliation of symptoms with EDB compared to surgery.

Competing interests None declared.

Radiology free papers

OC-148 INVESTIGATION AND OUTCOME OF PATIENTS WITH CT FINDINGS SUGGESTIVE OF COLITIS

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Introduction Multiple features of an abdominal CT scan may suggest underlying colitis, many of which are non-specific and may be mimicked by other pathologies. Such incidental findings often lead to difficulty in determining whether colonoscopic investigation is warranted. Studies that have looked at this area do not agree as to the best diagnostic approach for such patients and only included patients who had endoscopic investigations following the abnormal scan. This study aims to establish the clinical significance of an abdominal CT finding of colitis, ascertain how such findings are being investigated and determine whether these patients should undergo colonoscopy.

Methods All patients with CT findings of colitis in a district general hospital from March 2007 to March 2008 were included. Notes of all patients were reviewed over the 2 years following the abnormal CT scan, obtaining details of investigations, diagnosis and outcome.

Results 34 patients were included in our study. 62% were female and the median age was 72. 47% of patients with CT findings of colitis had the diagnosis confirmed with further investigation. 21% of patients had infective colitis, 12% ischaemic colitis and 15% inflammatory bowel disease (IBD). 6% of the total number of patients had a new diagnosis of IBD. 24% of colonoscopies undertaken were normal. 50% of patients did not undergo endoscopic examination because 12% had no GI symptoms, 24% were too unwell, 35% of diagnoses were reached by alternative investigation, 12% were unsuitable for endoscopic examination and 6% declined further investigation. Infective colitis was often poorly investigated with 32% of patients with acute diarrhoea not having a stool culture or clostridium difficile screen. Our results showed a similar incidence of colitis as previous studies but low levels of neoplasia and new diagnoses of IBD. This could be due to the inclusion of patients that did not undergo endoscopic investigation in our analysis. In those patients where endoscopic tests were not carried out based on clinical judgement, no cases of missed serious bowel pathology were found in 2 years follow-up.

Conclusion In conclusion a CT scan suggestive of colitis can reflect serious underlying pathology; however endoscopic investigation is not always indicated. Each case needs to be considered individually, based on clinical presentation, ensuring that the appropriate non-invasive tests are considered first.

Abstract OC-148 Table 1 Final diagnosis in patients with a CT finding of colitis

Diagnosis	Patients	Percentage
Inflammatory bowel disease	5	15%
Infective colitis	7	21%
Ischaemic colitis	4	12%
Diverticulitis	6	18%
Rectal cancer	1	3%
Colonic polyp	1	3%
Pancreatic cancer	2	6%
Other/non GI	7	21%
Declined investigation	1	3%

Competing interests None declared.

OC-149 SECRETIN-ENHANCED MAGNETIC RESONANCE CHOLANGIO-PANCREATOGRAPHY (SECRETIN-MRCP): A CASE SERIES AND REVIEW OF CLINICAL UTILITY

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Introduction MRCP is a standard investigation in pancreato-biliary disease. Secretin-MRCP has been shown to have value in the investigation of suspected Sphincter of Oddi dysfunction (SOD). We have used this modality since 2005 and review here the clinical utility of secretin-MRCP in our institution, with reference to indications, findings, and clinical outcomes.

Methods Patients undergoing secretin MRCP had a conventional MRCP, with determination of the best imaging plane for pancreatic and biliary ductal assessment. Secretin was then injected (1 U/Kg) and imaging was repeated every minute for 15 min, with documentation of ductal and exocrine responses. For this review, persistent ductal dilatation at 15 min was considered probable SOD and onset of pain after secretin possible SOD. All patients undergoing secretin-MRCP were identified from a radiology database. A casenote review was done, with documentation of indications and outcome measures as outlined above.

Results Seventy patients underwent secretin-MRCP between 2005 and 2011 (mean age 44, range 17-84, M:F ratio 3:1). Indications were; biliary pain with abnormal LFTs or ultrasound (suspected type 2 SOD, N=9), pain with normal investigations (suspected type 3 SOD, N=42), unexplained pancreatitis (N=13) or assessment of complicated pancreatitis (N=6). Forty-four scans were normal, 12 showed anatomical abnormalities and 14 probable/possible SOD (persistent ductal dilatation six, secretin-induced pain six, both two). Most (13/14) MRCP diagnoses of SOD were in patients where the clinical indication was biliary pain. In patients with SOD, 4/13