90/235 (38%) patients had polyp cancer. 83% of them in rectosigmoid.

(1) 13/90 were pedunculated polyps (mean size 23 mm, range 12–35 mm)

(2) 77/90 were flat polyp cancers (mean size 24 mm, range 8–80 mm)

See table 1 below

13/13 pedunculated polyp cancers were endoscopically resected. In 6/13 cases cancer was suspected prior to resection. Histology was reported accurately on 12/13 (92%) polyp cancers using Haggitt classification. 1/13 required surgery due to invasive features on histology.

30/77 (39%) of flat or sessile polyp cancers were endoscopically resected. Endoscopist suspected cancer in only 13/30 (43%) cases prior to resection. Histology was reported confidently by Kukuchi levels in 19/30 (63%) of lesions. 9/19 required surgery due to invasive features on histology. In 11/30 (37%) cases the histology report was inconclusive due to a poor quality EMR specimen. This led to surgery in all 11 patients but no residual disease or LN involvement was found.

Abstract PTU-047 Table 1 Breakdown of polyp cancer size and morphology

Size(mm)	Pedunculated	Flat	Total
0–10	0/13 0%	17/77 22%	17/90 19%
11–20	6/13 46%	27/77 35%	33/90 37%
> 20	7/13 54%	33/77 43%	40/90 44%

Conclusion

1. The in-vivo endoscopic diagnosis of cancer prior to resection is suboptimal and can be improved
2. Post EMR histology reporting is inconclusive in a large proportion of flat polyps leading to unnecessary surgery
3. Clinical care could be improved by optimising in-vivo diagnostic skills and resecting large flat lesions in single piece by ESD.

Disclosure of Interest None Declared

PTU-048 THE EFFECT OF THE COLONOSCOPE MAGNETIC IMAGING DEVICE (SCOPEGUIDE ®) ON IMPLANTABLE CARDIAC DEVICES

doi:10.1136/gutjnl-2013-304907.140

[1,*]G D Corbett, [1]Y C Lim, [2]P Pugh, [1]E Cameron. *[1]Gastroenterology; [2]Cardiology, Addenbrookes Hospital, Cambridge, UK*

Introduction Use of the colonoscope magnetic imaging device (ScopeGuide®, Olympus) is currently contraindicated by the manufacturer for patients with implantable cardiac devices. This group of patients is increasing every year, as is the number of colonoscopies being performed. This is the first study which examines the safety of ScopeGuide® in patients with permanent pacemakers (PPMs), implantable cardioverter defibrillators (ICDs) and cardiac resynchronisation therapy (CRT).

Methods Before any patient experiments, ex-vivo proof of concept studies were performed. Non-implanted devices were exposed to the electromagnetic field (EMF) of ScopeGuide® and monitoring demonstrated no evidence of interference or change in settings. Following this, ethical approval was obtained and consecutive patients attending device cheque clinics were prospectively recruited and exposed to ScopeGuide® EMF. After an initial device cheque, patients were attached to a device programmer and underwent continuous external cardiac monitoring. A colonoscope was placed curled on the abdomen over their clothing with patients lying supine to simulate the EMF generated during colonoscopy. The colonoscope was connected to ScopeGuide®. After 2 minutes of observation to assess for any interference, ScopeGuide® was disconnected and devices were checked for any change in settings.

Results 143 patients were invited to participate and of these 70 were recruited to take part in the study (46 male, 24 females, mean age 68.5 years SD 10.3). Device type, indication and manufacturer are summarised in Table 1. No evidence of interference was seen on device leads nor was any change in programming detected following exposure to ScopeGuide® EMF in any patient.

Abstract PTU-048 Table 1 Summary of baseline characteristics of recruited patients

Sample Size	M:F (total) Mean age (range, SD)	46:24 (70) 68.5 (30–80, 10.3)
Indications	Complete heart block	12
	1°, 2° or trifasicular block	12
	Tachybradyarrythmia	9
	Sick sinus syndrome	5
	Sinus bradycardia	4
	Dilated cardiomyopathy	10
	Others (IHD, VT/VF, AF, Syncope)	18
Device Type	PPM	45
	ICD	14
	CRT (Pace only : Defibrillator)	11 (6:5)
Manufacturer	Boston Scientific	31
	Meditronic	37
	Other	2

Conclusion The ScopeGuide® does not cause any interference or change in settings and appears to be safe to use in patients with implantable cardiac devices.

Disclosure of Interest None Declared

PTU-049 ENDOSCOPIC RESECTION AND STEPWISE ENDOSCOPIC ABLATION FOR EARLY NEOPLASIA IN BARRETT'S OESOPHAGUS: OUTCOME IN A LARGE OESOPHAGUS CANCER CENTRE

doi:10.1136/gutjnl-2013-304907.141

[1]N Fernandopulle, [1,*]G Horgan, [1]A Bailey, [2]R Marshall, [2]B Sgromo, [2]N Maynard, [1]B Braden. *[1]Translational Gastroenterology Unit; [2]Department of Surgery, Oxford University Hospitals Trust, Oxford, UK*

Introduction Endoscopic mucosal resection (EMR) followed by radiofrequency ablation (RFA) is now considered standard for treatment of high grade dysplasia (HGD) and intramucosal cancer in Barrett's oesophagus (BE). Complete ablation of the Barrett's epithelium is recommended to reduce the risk of metachronous neoplasia. However, RFA is an expensive treatment modality, often requiring repeat procedures and endoscopic surveillance thereafter and may not be necessary in all patients.

Methods We analysed our database of oesophageal EMR procedures performed for HGD or early cancer from 2008 to 2012. Patients' demographics, Barrett's length, histology, number of procedures, remission and complication were assessed. All patients referred for endoscopic treatment of early Barrett's neoplasia were investigated using EUS to exclude obvious infiltration of deeper structures. EMR was performed using band ligation mucosectomy. Patients were followed up 3 monthly with endoscopy and EMR repeated as required. If no dysplasia was found after a year, follow up interval was increased to 6 months.

Gut: first published as 10.1136/gutjnl-2013-304907.141 on 4 June 2013. Downloaded from http://gut.bmj.com/ on April 9, 2024 by guest. Protected by copyright.

Results 64 patients underwent EMR for HGD (20) or early oesophageal cancer (44) in BE. 149 EMR's were performed. 48 patients were male (75%), mean age was 70.6years (range 30–87years). 20 patients (31%) with either submucosal or deeper infiltration or poor differentiation in the EMR specimen underwent surgery/chemotherapy or were conservatively managed depending on patient's fitness, comorbidities and choice. Mean follow-up of the remaining 44 patients undergoing endoscopic therapy was 22.7 month (range 1–55 months). Remission of dysplasia/neoplasia was achieved in 97.9%. Stepwise EMR during follow up resulted in complete ablation of BE in 18 patients (40%) in a mean of 4 sessions. All patients with complete endoscopic Barrett's ablation had an initial maximal Barrett lengths < 3 cm. 7 patients with long Barrett's (> 5cm) received RFA and 7 others are awaiting the procedure. The overall complication rate was low (6.7%) including a stricture after RFA (0.7%), 8 procedural (5.3%, none Hb relevant) and a delayed bleeding (0.7%) but no perforations. All complications were managed endoscopically.

Conclusion Oesophageal EMR is a safe procedure which can achieve remission of neoplasia. In short segment Barrett's oesophagus it can also result in complete ablation of BE. Stepwise endoscopic resection for ablation has a low complication rate when performed in 3 monthly follow-up intervals.

Disclosure of Interest None Declared

PTU-050 EFFICACY OF ENDOSCOPICALLY APPLIED 5% INTRA-RECTAL FORMALIN TO TREAT RADIATION-INDUCED RECTAL BLEEDING

doi:10.1136/gutjnl-2013-304907.142

[1,*]H Jolly, [1]A C Muls, [1]H J Andreyev. [1]*Royal Marsden Hospital, London, UK*

Introduction Up to 50% of patients develop rectal bleeding after pelvic radiotherapy. Radiation-induced bleeding may be trivial and after appropriate endoscopic assessment, patients can be reassured and do not need treatment. Others develop troublesome bleeding affecting quality of life. 1–5% become transfusion dependent. The optimal treatment of radiation-induced bleeding and safety of available treatment modalities is controversial.

Methods A service evaluation was performed to assess outcomes of patients treated with intra-rectal formalin for radiation-induced rectal bleeding. Patients were offered formalin treatment if bleeding affected quality of life, they had no evidence of rectal ulceration and bowel function had been otherwise optimised. 5% formalin was delivered to the rectum using a gastroscope after full bowel preparation with the unsedated patient lying prone. Wet gauze was firmly applied to the perineum to prevent formalin leakage. 30–35mls formalin, sufficient to cover the telangiectasia, was instilled. The gastroscope was not removed. After 3 minutes, the formalin was washed out with water. If required, treatments were repeated 6–8 weeks later. Patients completed a questionnaire before each treatment and at follow-up. They were also asked to indicate on a 10cm visual analogue scale (VAS) the degree of nuisance currently caused by bleeding.

Results 27 men, median age 73 (range 56–81) were treated between 2008 and 2012. All received radiotherapy for prostate cancer in the previous 4 years. 41% (n = 11) had required ≥1 blood transfusions, 48% (n = 13) iron supplementation. 52% (n = 14) regularly soiled their clothes with blood. 22% (n = 6) had not responded to previous argon plasma coagulation. Median follow-up was 28 months (range 2–48).

67% (n = 18) reported improvement; reduction in frequency (52%, n = 14), and/or amount (44%, n = 12) of bleeding. Patients required 1–4 treatments (median 2) to achieve adequate improvement. Median baseline VAS score was 6.7cm (range 4.3–9.9). After one treatment, VAS scores improved by a median of 2.5cm (range 0.6–5.0), after 2 treatments by 3cm from baseline (range 0.7–6.1cm) and at follow up by 3.8cm (range 0–8.7). Two patients experienced serious complications. One who had chronic lymphocytic leukaemia developed septicaemia and pneumonia the following day. The organism responsible was not a bowel organism. The other developed an anterior rectal wall fistula in an area of intense radiation change requiring surgery 18 months later. Neither complication was considered to be caused by the formalin.

Conclusion 67% patients with radiation-induced rectal bleeding experience a satisfactory reduction in bleeding following treatment with intra-rectal formalin. Further studies comparing with other treatment modalities are required.

Disclosure of Interest None Declared

GI physiology

PTU-051 POST-PARTUM DEFECATORY DYSFUNCTION: A COMPLEX PROBLEM INVOLVING CO-EXISTING FAECAL INCONTINENCE AND RECTAL EVACUATORY DISORDER

doi:10.1136/gutjnl-2013-304907.143

[1,*]E Horrocks, [1]P Jordan, [2]R Burgell, [2]M Scott, [1]C Knowles. [1]*National Centre for Bowel Research and Surgical Innovation;* [2]*Wingate Institute of Neurogastroenterology, Queen Mary University London, London, UK*

Introduction Faecal incontinence and urgency are well-recognised sequelae of obstetric injury, however there is a paucity of literature describing the co-existence of symptoms of rectal evacuatory dysfunction (RED) and faecal incontinence (FI). This study aims to analyse and quantify these symptoms in patients referred for anorectal investigations following obstetric injury.

Methods Consecutive patients undergoing specialist investigation at a tertiary referral unit following obstetric injury between 1st July 2010 and 31st July 2012 were identified. Symptoms at presentation were ascertained from the history. Patients routinely complete a Cleveland Clinic Constipation Score (CCCS) and Vaizey Incontinence score (VIS) prior to investigation. Symptoms volunteered by the patient were correlated with formal scoring systems to verify accuracy of symptom reporting and to study the co-existence of FI and RED.

Results One hundred and sixty five women [median age 34 (range 19–55)] were included. Median parity was 2 [range 1–8]. Fourteen women (9.7%) had a 4th degree tear and 68 women (41%) a 3rd degree tear [106 (64%) occurring from the first vaginal delivery]. Three women requiring de-functioning stoma were excluded from further analysis.

FI was volunteered in 87 women (54%), [59 urge FI (36%), 57 passive FI (35%) and 28 mixed FI (17%)]. Ninety women (56%) volunteered symptoms of RED. Co-existent symptoms of RED and FI were present in 58 women (36%).

VIS and CCCS were available for 79 patients. Median VIS was 8 (IQR 4–13), and was significantly higher in those reporting FI symptoms [median score 11 (IQR 8–15)] than those not [median score 4 (IQR 0–8)] ($p < 0.0001$ Mann Whitney U Test). Median CCCS was 8 (IQR 4–14), which was significantly higher in those reporting RED symptoms [median score 13 (IQR 11–17)] than those not [median score 5 (IQR 3–8)] ($p < 0.0001$ Mann Whitney U Test). Fifty four patients (68%) had significant FI based on VIS (score > 5) and 39 patients (49%) had significant RED based on CCCS (score > 8). Thirty patients (38%) had scores compatible with significant co-existent FI and RED.

Conclusion These results demonstrate symptoms of FI and RED often co-exist following obstetric injury regardless of method used to ascertain symptoms. A multi-modality treatment approach addressing overlapping pathophysiologies should be considered in these patients.

Disclosure of Interest None Declared

Gut: first published as 10.1136/gutjnl-2013-304907.141 on 4 June 2013. Downloaded from http://gut.bmj.com/ on April 9, 2024 by guest. Protected by copyright.