considerably higher than initially reported and more in keeping with data from colonoscopic bowel screening. When examined by age, nearly 1:10 patients over 60 years would have had a missed proximal neoplasm. This rate was 1:100 for those who were under 60 years. A considerable volume of proximal non-neoplastic disease, mainly inflammatory, would also be missed with FS examination (1:20 patients under 60 years). This study supports the use of colonoscopy for first line investigation of all patients with symptoms suggestive of colorectal cancer.

Disclosure of Interest None Declared.

REFERENCES

- Lieberman MD, Weiss DG, Bond JH, *et al.* Use of colonoscopy to screen asymptomatic adults for colorectal cancer. *The New England Journal of Medicine* 2000; 343: 162–168.
- Thompson MR, Flashman KG, Wooldrage K, *et al.* Flexible sigmoidoscopy and whole colonic imaging in the diagnosis of cancer in patients with colorectal symptoms. *British Journal of Surgery*; 95:1140–1146.

PTH-029 BOWEL SCREENING WALES NETWORK MULTIDISCIPLINARY TEAM AND NATIONAL REFERRAL CENTRE – THE FIRST 100 CASES

doi:10.1136/gutjnl-2013-304907.517

¹S Dolwani, ¹H Heard, M Davies, N Williams, G Tudor, M Morgan, A Maw, R Davies, C Lewis. ¹Bowel Screening UK, Llantrisant, UK

Introduction The Bowel Screening Wales (BSW) Network Multi Disciplinary Team (NMDT) and National Referral Centre (NRC) pilot was established in October 2011 to offer the opportunity for expert opinion and discussion of therapeutic options for participants with complex benign polyps detected on the Welsh bowel screening programme.

Methods Participants with lesions that satisfied the agreed criteria were referred to the NMDT for advice from the expert panel regarding management. Recommended outcomes included local endoscopic or surgical treatment or referral to the NRC for endoscopic or surgical treatment.

Between the 17th of October 2011 and the 20th August 2012 October 2012 100 cases from all over Wales were discussed at NMDT meetings by video conference. Referrals were received from all 6 Health Boards in Wales and 11 of the 14 Local Assessment Centres (LAC) during this time frame.

Referral data and NMDT decisions were prospectively stored on a shared drive and a comprehensive data set entered onto the BSW registry for complex polyps.

Results The first 100 cases discussed at NMDT meetings satisfied the following referral criteria:

- 21 lesions with difficult to access
- 17 lateral spreading tumours > 2cms
- 11 participants with polyps greater than 4cms
- 20 participants with polyps in the right colon > 2cms
- 7 participants with residual polyps
- 24 others

52 cases were referred back to Local Assessment Centres for treatment, and 48 to the NRC for treatment. Detailed data on procedure type and final outcome will be presented in June.

All cases referred to the NMDT for discussion were thought to be benign at the time of referral which was confirmed by initial biopsy. Final histology was found to be adenocarcinoma in 6 cases. Data analysis will continue and include recurrence rates at 3, 6 and 12 months, post procedure complication rates and final number of procedures undertaken per participant for each lesion removed.

Conclusion The BSW NMDT and NRC have facilitated equity of service for participants of the bowel screening programme in Wales with complex benign polyps. Referrals to surgery for benign disease

have been reduced as a result. This process has also facilitated central referral for specialist endotherapy and surgical procedures.

Disclosure of Interest None Declared.

PTH-030 WITHDRAWN BY AUTHOR

PTH-031 POLYP SIZE, LOCATION AND RISK OF ADVANCED NEOPLASIA IN A BOWEL SCREENING POPULATION IN NORTH-EAST SCOTLAND

doi:10.1136/gutjnl-2013-304907.518

¹U Basavaraju, ²M Glaire, ¹P S Phull. ¹Department of Gastroenterology, Aberdeen Royal Infirmary; ²University of Aberdeen Medical School, Aberdeen, UK

Introduction Colonoscopic screening for colorectal cancer (CRC) reduces CRC-associated mortality; however, there is some evidence that this effect applies to mainly left-sided, rather than right-sided, CRC. It is postulated that this might be because polyps with advanced pathology are smaller in the right colon and therefore more easily missed (Gupta *et al Clin Gastroenterol Hepatol* 2012; 10:1395–1401). Our aim was to evaluate the relationship between the size and location of polyps with advanced neoplasia in a population undergoing bowel screening in North-East Scotland.

Methods Analysis of prospectively collected data collected for all screening colonoscopies performed in NHS Grampian region between January 2009 and January 2011. Subjects who had complete colonoscopy were included in the study. Lesions in the rectum, sigmoid or descending colon were considered left sided and lesions proximal to the splenic flexure considered right sided. Advanced neoplastic lesions (ANLs) were defined as polyps with cancer, high grade dysplasia or tubulovillous histology. Lesion size was defined as ≥ 1 cm or < 1 cm

Results Of the total 1415 subjects undergoing screening colonoscopy during the 2 year period, 1320 (93.3%) had a complete colonoscopy and were included in the analysis. Of these, 606 (45.9%) subjects had a total of 1366 polyps; of these, 213 (35%) subjects had ANLs. Median patient age was 64yrs, and 157 (74%) were males. ANLs were located in the left colon in 169 (79.3%) subjects, in the right colon in 31 (14.6%) of subjects, and in both sides in 13 (6.1%) subjects. There was no significant difference between the proportion of subjects with small ANLs (< 1 cm size) in the right colon ($n = 3$, 9.7%) compared to the left colon ($n = 24$, 14.2%; Fisher's exact test).

Conclusion In subjects undergoing bowel cancer screening in North-East Scotland, small ANLs were not more common in the right colon. Further studies are required to clarify the pathogenesis of right-sided colonic cancer.

Disclosure of Interest None Declared.

REFERENCE

Gupta *et al. Clin Gastroenterol Hepatol* 2012; 10:1395–1401

Endoscopy

PTH-032 FUNCTIONAL OUTCOMES AFTER ENDOSCOPIC SUBMUCOSAL DISSECTION OF LARGE RECTAL POLYPS

doi:10.1136/gutjnl-2013-304907.519

¹N Suzuki, ¹N Ashraf. ¹Wolfson Unit for Endoscopy, St Mark's Hospital, Harrow, UK

Introduction Large rectal polyps can cause a variety of symptoms. Removal of these lesions results in symptom resolution but may also lead to symptoms of evacuatory dysfunction. In this study, we present the functional outcomes and patient satisfaction after endoscopic submucosal dissection (ESD) of rectal polyps greater than 40mm in size.

Methods This was a retrospective analysis of patients who underwent ESD or hybrid ESD/endoscopic piecemeal resection (ESD/EPMR) of large benign rectal polyps. Details pertaining to the polypectomy were gathered and patients were asked a series of questions regarding their bowel function before and after endoscopic resection.

Results Thirty four patients underwent ESD or hybrid ESD/EPMR for large rectal polyps between January 2006 to May 2012. The median maximal polyp measurement was 62mm (range 40 – 150mm) and median circumferential involvement, 50% (range 30 – 90%). The patients had symptoms of the passage of mucous (12 patients), rectal bleeding (9) and faecal incontinence (1) before the treatment. In all cases, these symptoms resolved after the treatment. Regarding the bowel function post procedure, 16 patients (47.1%) opened their bowel less frequently, 12 patients (35.3%) the same and 6 patients (17.6%) more frequently. Eighteen patients felt that their completeness of evacuation was the same, 8 improved and 5 worsened. Almost all of the patients (33 patients, 97.1%) did not use laxatives before their polypectomy, however 14 patients (41.2%) required the regular use of laxatives post procedure. None of the cases did not require any further intervention like dilatation. There was no relationship between circumferential involvement and patients who developed a decreased frequency of defecation or who used laxatives after ESD (Mann-Whitney Test, $p=0.567$). On a scale of 1 to 10, where 1 was extremely unsatisfied and 10 was extremely satisfied, the patients rated their ESD experience at 10 (Median, Range 7 – 10).

Conclusion ESD of large rectal polyps resulted in an improvement in symptoms of rectal bleeding and passage of mucous. It also results in a decreased frequency of defecation and an increase in use of laxatives. Functional outcomes are not related to polyp size or circumferential involvement. Patients were extremely satisfied with their ESD experience.

Disclosure of Interest None Declared.

PTH-033 A SYSTEMATIC APPROACH TO STANDARD ENDOSCOPIC SAMPLING OF BILE DUCT STRICTURES IS HIGHLY ACCURATE IN THE DIAGNOSIS OF BILIARY STRICTURES

doi:10.1136/gutjnl-2013-304907.520

¹O Noorullah, ¹V P K Lekharaju, ¹C W Wadsworth, ²K Brougham, ¹N Stern, ¹S Hood, ¹C Kaltsidis, ²M Terlizzo, ¹R Sturgess. ¹Digestive Diseases Unit; ²Department of Pathology, Aintree University Hospital, Liverpool, UK

Introduction Accurate diagnosis of bile duct strictures as malignant or benign is imperative for optimal patient management, but is frequently difficult. Histological and cytological samples can be obtained at ERCP. Various techniques have been studied and reported specificities are generally very high. Sensitivities are modest and variable. The reported sensitivity is 33–57% for brush cytology and 43–81% for transpapillary histology. The yield may be increased by combining two sampling methods.

Methods Data was collected prospectively on all patients with bile duct strictures who underwent histology and cytology. Transpapillary, intraductal biopsies were obtained using a paediatric biopsy forceps (Boston Scientific, Radial Jaw 4, 2.0mm paediatric biopsy forceps, Hemel Hempstead, UK). Fluoroscopic guidance was used to selectively target the stricture. A minimum of 4 biopsies were obtained. Cytological samples were obtained using an over the wire brush (Boston Scientific, RX Biliary brush 2.1mm, Hemel Hempstead, UK). This involved multiple passes through the stricture and withdrawal of the brush in to the catheter after the final pass. On retrieval, the catheter was flushed with the cytology fixation fluid in to the cytology collection container and the brush was cut off and sent in the same container.

The sample was delivered to the lab for processing to the lab immediately after the procedure. Patients diagnosed with benign strictures had a follow up with median length of 20 months (range 4–35).

Results 96 strictures were sampled using dual modality. 70 were malignant of which 49 were in the peri-hilar and proximal CBD and 21 in distal CBD. The sensitivity in diagnosis of malignant biliary strictures was 74% with an overall accuracy for all strictures of 81%.

Histology was positive in 33/52 cases (63%) and cytology was positive in 29/52 cases (56%). Taken together, they yielded a significantly better result of 74%.

The sensitivity was higher for peri-hilar (82%) as compared to distal strictures (57%). There were no false positives. No complications as direct result of either tissue acquisition techniques occurred.

Abstract PTH-033 Table 1

Sensitivity	74% (n = 70)
Peri-hilar	82% (n = 49)
Distal	57% (n = 21)
Specificity	100%
PPV	100%
NPV	59%
Accuracy	81%

Conclusion A highly systematic approach and combination of histology and cytology offers a significant advantage in diagnostic accuracy for both malignant and benign strictures. The high yield on cytology in our study may reflect attention to detail and prompt processing in the lab. None of the techniques adopted required specialised equipment or skills and could be adopted by any ERCP unit

Disclosure of Interest O. Noorullah: None Declared, V. Lekharaju: None Declared, C. W. Wadsworth: None Declared, K. Brougham: None Declared, N. Stern: None Declared, S. Hood: None Declared, C. Kaltsidis: None Declared, M. Terlizzo: None Declared, R. Sturgess Conflict with: Advisory board member and in receipt of honoraria from Olympus UK and Boston Scientific

PTH-034 ACHIEVING NICE STANDARDS FOR ENDOSCOPIC SUBMUCOSAL DISSECTION: FIRST UK PRACTICE STUDY

doi:10.1136/gutjnl-2013-304907.521

¹P Hurlstone, ¹I Elfadel, ¹E Said. ¹Endoscopy, Barnsley NHS Foundation Trust, Yorkshire, UK, Barnsley, UK

Introduction Endoscopic submucosal dissection (ESD) is an advanced technique that aims to resect appropriately selected gastrointestinal intraepithelial neoplasias *en bloc*, allowing precise histological diagnosis for staging and resection margin analysis. No published data from the UK exists from either tertiary referral units or DGH settings since the recent publication of ESD NICE guidelines in 2010. Such data is of paramount importance for service development and for establishing the potential role of ESD in current Cancer Service Frameworks (CSF) in the UK. Data is urgently required by NICE for stage 1 guidance revision.

Methods All patients who underwent ESD in 2009–2012 at BDGH (n = 47) were included in this study. Primary outcome measures were complication rates, resection status, 30-day readmission rates, mortality and tumour recurrence. These data were then analysed against recently published standards set by NICE.

Results Inclusions-HGD/IMC/T1 carcinoma/GIST. n = 47 (LGIT 26/UGIT 21). *En bloc* resection was achieved in 45/47