Introduction Although colonoscopy is considered the optimal procedure for bowel cancer screening, it remains an imperfect tool for cancer prevention, due to missed adenomas and early cancers. Optimal imaging modalities, innovative scopes and accessories (cap-assisted colonoscopy) have attempted to decrease the adenoma miss rate. Adenoma detection rates (ADR) have been shown to be a key performance indicator

Methods Endocuff-vision is a simple accessory mounted at the end of the scope with a proximal row of 6mm length soft plastic, finger-like projections. During scope insertion, these projections invert towards the shaft of the tube and during withdrawal they evert to hold back the colonic folds augmenting the forward endoscopic views. ADRs were recorded and evaluated for screening colonoscopy procedures before and after introduction of Endocuff-vision.

Results To date, four screening endoscopists (BPS, STG, CF, AH) have used the Endocuff-vision as part of a clinical evaluation process form August 2013 until November 2013. From our local Bowel Cancer Screening Program database, the figures of caecal intubation rate (CIR) and the ADRs of the screening endoscopists during April 2013 to July 2013 before Endo-cuff were retrieved:

BPS: CIR-100%/ADR-62.72%,
STG: CIR-95.84%/ADR-40.03%,
CF: CIR-93%/ADR-36.76%,
AH: CIR-96.25%/ADR- 55.35%.

Prior to the introduction of the Endocuff-vision, the cumulative CIR was 96.27% and ADR was calculated to be **48.71%**.

The total number of procedures where Endocuff-vision has been mounted was in 30 occasions (BPS-10, STG-11, CF-3, AH-6) with similar CIR rates but increased cumulative ADR of **65.5%.** On 3 patients the Endocuff-vision was electively removed from the scope due to insertion difficulties through fixed sigmoid colonic segments secondary to severe diverticular disease. There were no adverse events reported during the trial evaluation period.

Conclusion In this small pilot study, use of the Endocuff appeared to improve the ADR by 17%. There were no complications from the use of the cuff although it was electively removed in 3 cases with severe sigmoid colon diverticulosis. Further randomised evaluation of this simple novel device is warranted.

Disclosure of Interest None Declared.

PWE-068 ENDOSCOPIC RESECTION OF COMPLEX COLONIC POLYPS – WHERE DO THE BOUNDARIES LIE?

T Elliott, ZP Tsiamoulos*, N Suzuki, BP Saunders. *Wolfson Unit for Endoscopy, St Mark's Hospital/Academic Institute, London, UK*

10.1136/gutjnl-2014-307263.328

Introduction The role of endoscopic resection for colonic polyps previously destined for surgery is expanding. However, surgery remains appropriate in some cases. The aim of this study was to examine tertiary polyp referrals that did not undergo endoscopic polypectomy. The objectives were to determine (i) the proportion of polyps referred for polypectomy that were not endoscopically resected, (ii) the primary reason in this decision-making and (iii) factors associated with polyps that were not endoscopically resected.

Methods A prospective observational study of all polyps referred for endoscopic resection (ER) to a tertiary centre between January 2010 and August 2012 was performed. For each case, ER was either completed, abandoned or not attempted. The primary reason for abandoning or not attempting ER was documented. Demographics, polyp characteristics and histology were recorded and a comparative analysis (using chi-square test and independent-samples T test) was made between patients in whom ER was abandoned or not attempted with those in whom ER was completed.

Results ER was either abandoned (n/29) or not attempted (n/55) in 84 of 423 polyp referrals. This was most commonly because of suspected invasive cancer (45/84). Of these 45 polyps, 12 had characteristic macroscopic features of cancer on inspection. In 24/45, invasive cancer was suspected after advanced endoscopic examination (including surface morphology (Paris/NICE/Kudo) classification and forceps palpation). In 9/45, invasive cancer was only suspected during attempted ER, which was then abandoned. The remaining 41/84 polyps for which ER was abandoned or not attempted appeared benign. The positive and negative predictive values of endoscopic evaluation for the diagnosis of invasive cancer were 86% and 96% respectively. The benign-appearing polyps were not endoscopically resected because of (i) a high risk location (ie. overlying the appendix, IC valve or a diverticulum), n = 12; (ii) difficult access, n = 12; (iii) size ≥ 5 cm combined with other factors, n = 8; (iv) age/comorbidities, n = 4 or (v) poor tolerance of colonoscopy, n = 2. Forty-six percent of these benign polyps were in the caecum. In comparison with patients who underwent complete ER, those in whom ER was abandoned or not attempted were more likely to be female (56 vs. 37%, $P < 0.001$), had larger mean polyp size (4.7 cm vs 3.7 cm $P < 0.001$), and had a higher incidence of polyp cancer on histology (47 vs. 2.7% $P < 0.001$).

Conclusion Twenty percent of polyps referred to a tertiary institution for polypectomy may not be suitable for endoscopic resection. This is most commonly due to the presence of invasive cancer which can usually be recognised by endoscopic examination.

Disclosure of Interest None Declared.

PWE-069 COMPARISON OF MICROWAVE WITH MONOPOLAR AND BIPOLAR COAGULATION IN A PORCINE MODEL

[1]ZP Tsiamoulos*, [2]C Hancock, [3]PD Sibbons, [1]BP Saunders. *[1]Wolfson Unit for Endoscopy, St Mark's Hospital/Academic Institute, London, UK; [2]Department of Electronic Engineering, Bangor University, Bangor, UK; [3]Department of Surgical Sciences, Northwick Park Institute for Medical Research, London, UK*

10.1136/gutjnl-2014-307263.329

Introduction Intra-procedural bleeding is considered an immediate serious adverse event and a major concern for the endoscopist and the patient. Current endoscopic devices utilise monopolar or bipolar energy to treat acute bleeding vessels and/or pre-coagulate visible vessels but there are no *ex vivo* comparative studies assessing the safety profile with histology.

Methods The optimal time of application for the microwave modality of a new endoscopic device "Speedboat-RS2, Creo Medical Ltd, UK" was initially assessed compared to a standard mono-polar endoscopic device, Coagrasper, Olympus, USA. After histological assessment of the optimal time range, a comparison of the Speedboat RS2 to a standard bipolar endoscopic device, Gold Probe, Boston Scientific, USA, and to standard monopolar device, Coagrasper, was performed to assess the safety profile of coagulation with histology and the endoscopic performance of pre-coagulation in the porcine colon. The Speedboat-RS2 blade delivered microwave coagulation (5.8 GHz) for