Abstract PTU-62 Figure 1 Biopsies taken in those diagnosed with MC

The diagnosis of MC was made in 20 cases. The age distribution was 30 to 80 (median 67.5) with male to female ratio 3:7. All had biopsies taken from both right and left colon amounting to 3 to 13 biopsies in total. The most common biopsy pattern in those diagnosed with MC were 5-6 biopsies taken as colonic series (25%) or 2-4 biopsies taken from both right and left colon (45%). Distribution in number of biopsies is shown in Table 1.

Conclusion There was a large variation in the sites and number of biopsies taken to investigate for MC reflecting the lack of established guidance on biopsy protocol. Excessive biopsy samples have negative impacts on our green footprint, increase workload for histopathology colleagues and potential risk in bleeding and perforation risk for patients.

We propose that the BSG should implement MC diagnostic biopsy protocol for standardisation of our practice. From the results of our data we advocate for either 5-6 biopsies as a colonic series or 2-4 biopsies to be taken from both right and left colon. Biopsies should not be taken from the rectum in a macroscopically normal colon.

*Multiple biopsies ordered from proximal to distal colon

PTU-63 SEMI-AUTOMATED ANNOTATION TOOL OUTPERFORMS MEDICAL STUDENTS AND IS COMPARABLE TO CLINICAL EXPERTS FOR POLYP DETECTION

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Introduction Expert labelling of each frame in a polyp video is the most robust way for constructing a training set for deep learning, but this is very time-consuming and currently represents a major barrier for widespread implementation of AI in endoscopy. In this study, two alternative approaches are evaluated, an innovative semi-automated labelling tool and trained medical students providing annotations.

Methods 20 unique polyp white light videos containing 6282 frames (14 adenomas and 6 sessile serrated lesions confirmed by histopathology, mean size 7mm, Olympus) were annotated with bounding boxes by a clinical expert. These annotations are used as the gold standard for comparison. Two cheaper annotation methods were then applied to evaluate their validity and relative performance: (1) a semi-automated labelling technique – this tool only requires 3 manually annotated

Abstract PTU-63 Table 1

	Sensitivity	PPV	Adjudicated PPV	Time (mins)
Student 1	74,38 ± 27,30	88,52 ± 30,51	89,92 ± 15,34	264
Student 2	63,08 ± 20,27	94,69 ± 22,30	95,00 ± 07,47	1208
Student 3	66,97 ± 27,37	94,77 ± 22,32	95,00 ± 12,30	234
Semi-automated	94,40 ± 06,22	97,17 ± 05,87	98,97 ± 14,04	25

video frames, from which a representation of the polyp is learned and transferred automatically to all the other frames in the video; (2) independent manual labelling of each video by three medical students – following a training module with polyp images and videos.

Results The mean and standard deviation of the frame-level sensitivity, positive predictive value (PPV) and adjudicated PPV (for borderline low-quality frames) over all videos are provided in table 1. The semi-automated method significantly outperforms all three students on sensitivity and annotation time (paired t-test, p-value < 0.05), while also achieving the highest value for PPV, both before and after adjudication.

Conclusions A semi-automated labelling tool is a faster, more efficient and valid approach for polyp detection. It outperforms three medical students, specifically trained for polyp recognition and is comparable to clinical expert performance.

PTU-64 SALINE IMMERSION THERAPEUTIC ENDOSCOPY FACILITATED ENDOSCOPIC SUBMUCOSAL DISSECTION OF AN ILEAL LIPOMA DURING ENTEROSCOPY

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Introduction Small bowel lipomas are benign, usually innocuous lesions which more frequently affect the terminal ileum (TI). They are usually asymptomatic but may give rise to obstructive symptoms and gastrointestinal bleeding, especially if ≥2cm in diameter. Although in such cases, surgery has been the mainstay of care, endoscopic resection is being increasingly employed. Endoscopic submucosal dissection (ESD) is emerging as a safe and definitive endotherapeutic, minimally invasive strategy for such lesions.

Methods A 69-year-old man with ischaemic heart disease and cerebrovascular disease was referred to our tertiary institution for endoscopic resection of a large, symptomatic, intussuscepting lipoma of the TI. At retrograde double-balloon enteroscopy (DBE), under conscious sedation, a 35mm semi-pedunculated submucosal lesion was identified within the TI, about 5cm proximal to the ileocecal valve.

Results Endoscopic morphology was pathognomonic of a lipoma. The lesion's size and its location within the narrow lumen of the TI precluded safe snare resection and we therefore proceeded with ESD. After injection of submucosal-lifting-solution (succinylated gelatin, indigo carmine (0.05%) and dilute epinephrine (1:100,000)), the stalk was dissected using

saline-immersion therapeutic endoscopy (SITE) facilitated ESD with a ball-tipped, needle-type ESD knife (Flush Knife-BT (1.5mm), Fujifilm, Tokyo, Japan). The resection site was clipped prophylactically and the lipoma was retrieved with a Roth® net (Steris, Mentor, OH, USA) (Fig. 3-4). No immediate, early or late adverse events occurred. Histopathology confirmed complete resection of an ileal lipoma.

Conclusions Our case demonstrates the usefulness of this technique, particularly when combined with the safe and stable endotherapeutic platform afforded by DBE and the buoyancy facilitated by SITE. To the best of our knowledge this is only the 3rd reported case of ESD for a TI lipoma and the only case to date combining the use of SITE-ESD and DBE.

PTU-65 CYANOACRYLATE-INJECTION ENDOTHERAPY FACILITATED BY DOUBLE-BALLOON ENTEROSCOPY: ENDOSCOPIC MANAGEMENT OF ANASTOMOTIC VARICES BLEEDING

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Introduction Small bowel varices are an uncommon cause of severe gastrointestinal bleeding. There is no consensus regarding the endoscopic management of these patients. Cyanoacrylate injection endotherapy has been described as a therapeutic alternative in some cases.

Methods A 65-year-old man with a metastatic mid-gut neuroendocrine tumour warranting extensive small-bowel resection presented with life-threatening mid-gut bleeding. A CT enterography (CTE) demonstrated jejunal anastomotic varices, with superior mesenteric vein thrombosis. Without a radiological option for treatment, antegrade double-balloon enteroscopy (DBE) was planned to facilitate cyanoacrylate-injection endotherapy (CIE).

Results During DBE 2 nests of bleeding varices were identified at the anastomosis. DBE CIE (diluted in lipiodol) was successful performed through a wide-bore injection-needle. No immediate or delayed adverse events were reported. A subsequent CTE confirmed successful embolisation of the mid-gut varices. The patient has not bled further during 6-months of follow-up.

Conclusions DBE facilitated CIE of mid-gut varices is effective and safe in carefully selected cases.

PTU-66 MANAGEMENT OF SMALL-BOWEL POLYPS IN PATIENTS WITH PEUTZ-JEGHERS SYNDROME: ISCHAEMIC POLYPECTOMY ASSISTED BY DOUBLE-BALLOON ENTEROSCOPY

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Introduction Ischaemic polypectomy with detachable-snare or endoclips at double-balloon enteroscopy (DBE) is emerging as a promising technique for the minimally-invasive management of small-bowel polyps in patients with Peutz-Jeghers syndrome (PJS).

Methods The aim of our study was to review our experience of ischaemic polypectomies in patients with PJS from July 2017 to November 2020. Demographic, endoscopic, histopathological data were analysed.

Results In this case series, 46 polyps were treated during 9 therapeutic DBEs (6 antegrade and 3 retrograde) performed in 4 patients (3 male and 1 female). Seven polyps >20mm in size required loop ligation with a detachable-snare. The majority of the small bowel polyps (39 lesions) were <20mm and were treated successfully with the double-clipping technique. No immediate or late adverse events occurred. All patients remained asymptomatic during follow-up (mean 19; range 1-48 months). None required subsequent surgery.

Abstract PTU-66 Tabel 1

Age/ Gender	Number of procedures (antero/retro)	Total polyps	Clipping	Detachable snare for polyps >20mm
50/M	2(1/1)	17	17	-
56/M	1(1/-)	14	14	-
29/F	3(1/2)	7	4	3
29/M	3(3/-)	8	4	4

Conclusions Ischaemic polypectomy facilitated by DBE appears to be a safe and effective endotherapeutic option for endotherapy of small-bowel polyps in patients with PJS.

IBD

PMO-1 IDENTIFICATION OF A NOVEL COLONIC MACROPHAGE SIGNATURE IN A SUBSET OF CROHN'S DISEASE PATIENTS

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Introduction Inflammatory bowel diseases (IBD) are conditions characterised by chronic gastrointestinal inflammation resulting from abnormal immune responses against gut microbiota. Crohn's disease (CD) is one of the two common forms of IBD which can manifest as inflammation anywhere along the gastrointestinal tract, causing potentially life-threatening complications. A wide range of immunomodulatory therapies are available for IBD treatment. However response rates are often suboptimal and many patients still require resective surgery. Therapeutic outcomes could be significantly improved by identifying biomarkers that predict treatment responses in CD patients and by developing a deeper understanding of the different molecular mechanisms that drive inflammation.