Conclusion This pilot study has shown the DCS could be a useful tool for the prediction of difficult colonoscopy. This could be of benefit when scheduling lists for training and choosing the level of experience of colonoscopists before procedures are performed. A large study is planned.

Competing interests None declared.

PTU-229 THE EFFECT OF FRAME RATE AND VIEW MODE ON LESION DETECTABILITY BY NOVICE AND EXPERT CAPSULE ENDOSCOPISTS DURING READING

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Introduction The RAPID 7 Access reading software (Given Imaging Ltd) allows the capsule endoscopist to adjust the frame rate of presented images (adjustable frame rate, AFR) and their view mode (VM1 - single view; VM2 - dual view; VM4 - quad view) during capsule endoscopy (CE) reading. The aim of this study was to establish the relationship between AFR, VM, lesion miss rate and reading time between non-expert (NEXs) and expert (EXs) capsule endoscopists.

Methods One short video clip containing 60 positive images of angioectasias was selected from our CE database. The clip was read by 3 EXs and 3 NEXs using nine different combinations of VM and AFR (1, 2 and 4 VMs × 10, 15 and 25 fps) presented in randomised order. Readers were asked to count each positive image of an angioectasia using a manual counter, without interrupting the video clip.

Results The reading times at 10, 15 and 25 fps were 54, 34 and 20 s, respectively for any VM. Considering 10 fps as the gold standard, an AFR of 15 and 25 fps resulted in a reduction in reading time of 37% and 63% respectively. The number of positive images detected using 10, 15 and 25 fps (all VM's combined) were 45, 31 and 22 respectively. The mean number of detected positive images (MPI) using 10 fps was significantly higher than an AFR of 15 and 25 fps ($p=0.04$, 0.01). For VM1, VM2 and VM4, the MPI was 24, 36 and 38 respectively. The MPI using VM2 and VM4 was significantly higher than for VM1 ($p=0.01$, 0.003). VM4 × 10 fps had highest MPI (51) while VM1 × 25 fps had the lowest MPI (14). MPIs of NEX and EX (all VM's combined) were 34 and 32 and were not significantly different.

Conclusion While a higher AFR results in a reduction in reading time, lesion detectability is reduced and miss rates increase. Higher MPIs are associated with lower AFRs and an increase in VM. In this study the optimal combination for lesion detectability was VM4 × 10 fps. NEXs and EXs performed similarly for the detection of angioectasias.

Competing interests None declared.

PTU-230 OUTCOMES OF ENDOSCOPIC HUMAN THROMBIN INJECTION IN THE MANAGEMENT OF GASTRIC VARICES

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Introduction The optimal therapy for gastric variceal bleeding remains unclear. Endoscopic Human Thrombin injection appears a technically simple and efficacious alternative to cyanoacrylate with fewer complications, but data remains limited. This study evaluated patient outcomes following thrombin injection for gastric varices.

Methods Retrospective review of patients receiving endoscopic human thrombin injection for active bleeding or prevention of bleeding from gastric varices at a UK tertiary centre from December 2008 to November 2011. Thrombin injection (Tisseel 250 IU/ml, Baxter Int. Inc.) was repeated at intervals until varices eradicated.

Results 23 patients (65% male, mean age 53.1 (SD 14.0)), received human thrombin injection for gastric varices. Mechanism of portal hypertension was cirrhosis 17 patients (74%), extra-hepatic 6 (26%). Cirrhosis was due to alcohol (10), viral (2), PBC (2), other (3); 4 had additional portal vein thrombosis. TIPSS was felt not feasible in 8 (35%). Mean MELD was 13 (SD 5). Childs grade A, B, C in 39%, 35% and 26% respectively. Varices were classified: IGV1 19 (83%), IGV2 3 (13%), GOV2 1 (4%). 14 patients (61%) were actively bleeding or had signs of recent bleeding; of these haemostasis was achieved in 12 (86%). Mean thrombin dose/injection was 1168 IU (range 400–2500); median number of sessions 2 (range 1–7) with no reported complications. Median follow-up was 476 days (IQR 193–931). No patient underwent liver transplantation. Rebleeding occurred in 9 (39%) patients, 5 (56%) within the first week (range 1–1008 days), 1 yr rebleeding rate 35%. Rebleeding was successfully managed in 78%, by salvage TIPSS (5 patients) and thrombin injection (2). Two patients died following rebleeding. Six deaths (26%) occurred in total all within 12 months; the remainder were due to uncontrolled bleeding (1), liver failure (1), MOF following OV bleed banded (1), and hepatocellular carcinoma (1). Cumulative survival at 1, 6, 12 months was 82%, 78%, and 74% respectively. Where TIPSS was precluded, 75% (6 of 8 patients) were managed successfully with thrombin.

Conclusion Thrombin in our series appears to be a safe and effective endoscopic therapy for gastric varices, achieving good haemostasis with low medium to long term rebleeding rates. It may have particular utility in salvaging patients not suitable for TIPSS.

Competing interests None declared.

PTU-231 BOWEL PREPARATION FOR INPATIENT COLONOSCOPY: AN AUDIT OF QUALITY AND OUTCOMES

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Introduction It is well recognised that inpatient colonoscopy is more problematic than outpatient colonoscopy, with poorer quality of bowel preparation[1] and reduced rates of successful completion of the procedure among inpatients.[2] We aimed to measure the quality of bowel preparation and the success rate of inpatient colonoscopy in a large district general hospital.

Methods All patients undergoing inpatient colonoscopy at Worcestershire Royal Hospital between 1 September 2010 and 1 September 2011 were identified retrospectively using paper-based documentation available in the Endoscopy department. The computerised colonoscopy reports (Unisoft, Enfield, UK) were then obtained for these patients. Standard bowel preparation for these patients was two sachets of Picolax, one the evening before and one the following morning, with colonoscopy performed on an afternoon list. Successful colonoscopy was defined as intubation of the caecum with "excellent" or "good" bowel preparation.

Results We identified 50 patients undergoing inpatient colonoscopy, with a median age of 74 (IQR 62–80), representing 3% of all colonoscopies done during this period. Approximately one-third (38%) were performed due to suspicious symptoms (most commonly PR bleeding), one-third (34%) were performed due to a CT abnormality,