

PMO-213 A PROSPECTIVE, RANDOMISED STUDY OF DOUBLE-BALLOON COLONOSCOPY VS CONVENTIONAL COLONOSCOPY FOR TECHNICALLY DIFFICULT COLONOSCOPY

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Introduction Technically "difficult" (TD) colonoscopy may lead to incomplete colonoscopy, increased patient discomfort and potentially higher sedation dose. Parameters which are associated with TD colonoscopy include female gender, age, BMI, history of major pelvic/abdominal surgery or chronic constipation and previous failed conventional colonoscopy (CC). Double-balloon colonoscopy (DBC) may facilitate TD colonoscopy.

Methods We performed a prospective, randomised study comparing DBC and CC for TD colonoscopy. Patients referred for a colonoscopy were screened for parameters predictive of TD colonoscopy using a scoring system developed at our institution. Only patients with scores ≥ 3 qualified for recruitment; patients were then randomised to DBC or CC, performed by 1 of 2 designated experienced endoscopists. Collected data included patient pain/discomfort, difficulty of colonoscopy as judged by the endoscopist, sedation dose, colonoscopy completeness, time taken for caecal intubation/procedure completion and recovery time. On recovery, patients were asked to rate their satisfaction and whether they would opt to undergo the same type of colonoscopy in future.

Results Forty-four patients were recruited (DBC, n=22; CC, n=22). Median calculated pre-procedure difficulty scores were the same for both groups (4.0 vs 4.0, p=0.16). Mean patient discomfort and pain scores were significantly lower for the DBC group (2.6 vs 4.8, p=0.004 and 2.4 vs 4.9, p=0.002, respectively). Median doses of midazolam and pethidine used were significantly lower for DBC procedures (0 vs 1.25 mg, p=0.023 and 0 vs 25 mg, p=0.014, respectively). While differences in mean times taken for caecal intubation at DBC vs CC were similar (17.5 vs 14 min, p=0.18), DBC facilitated total colonoscopy in all 22 cases whereas 6 CC procedures were only completed with the aid of a magnetic endoscopic imager (MEI), required after a mean of 15 min of failing to progress. Another 3 CC cases failed to achieve caecal intubation despite use of a MEI and even a paediatric colonoscope. Median recovery time was significantly shorter for DBC (5 vs 20 min, p=0.014). Endoscopists found DBC to be significantly easier to perform than CC (median difficulty VAS: 3.6 vs 6.6 p=0.0005) and significantly more patients in the DBC group were satisfied (DBC vs CC median Likert satisfaction score: 5.0 vs 3.0, p=0.006). All patients in the DBC group said they would have DBC again but 41% of patients in the CC group said they would consider an alternative procedure instead.

Conclusion Our study suggests that DBC is a more comfortable and easier alternative to CC for TD cases. Since it appears to require less use of sedation, recovery also appears to be faster, with higher patient satisfaction levels.

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PMO-214 DOUBLE BALLOON COLONOSCOPY: SINGLE CENTRE EXPERIENCE IN PATIENTS WITH PREVIOUSLY FAILED COLONOSCOPY

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Introduction Double balloon endoscopy is considered a technique for the investigation of the small-bowel. Recently, Double balloon

colonoscopy (DBC) using dedicated colonoscopes has been shown to be associated with very high rates of caecal intubation. In this study we report the DBC experience in our centre as second line endoscopic investigation in patients who failed conventional colonoscopy.

Methods Retrospective review of patients referred for DBC to our Centre from July 2009 to January 2012.

Results Twenty-three consecutive patients (12 male/11 female mean age 60.2 ± 16 years) underwent DBC. The sedation used was midazolam/fentanyl (mean: 3.5/75 mg). 19/23 had a DBC due to previously failed colonoscopies. In four, DBC was first choice test as they had unpleasant experiences from conventional colonoscopy in the past. In 7/23 (30.4%), there was evidence of previous abdominal surgery. In 4/23 (17.4%) a fixed and/or acutely angulated sigmoid was the cause of failure. In the remaining 12 patients, significant patient discomfort was the principal cause of failure. Nine patients (39.1%) had one failed colonoscopy, six (26.1%) had two failed colonoscopies, while four (17.4%) had more than two failed colonoscopies. In 22/23 DBC (95.7%) was successful; the entire colon and terminal ileum DBC were examined in all cases. No immediate or delayed complications were recorded. Patient tolerability was very good.

Conclusion DBC is a safe and reliable method for complete colon examination and it is an important alternative technique in cases where a conventional colonoscopy has failed. Patient groups that are more likely to benefit are those with adhesions due abdominal surgery or fixed and angulated sigmoid colon. The technique is currently limited to few centers only, but the success rate and the very good patient tolerability suggest that it should be considered as an alternative in challenging cases.

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PMO-215 MOVIPREP VS PICOLAX FOR SCREENING COLONOSCOPY

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Introduction This study involves a retrospective review of the standards of bowel preparation during screening colonoscopy at a Local Assessment Centre (LAC) in Wales. The audit data were collected over a 12-month period with an aim to identify which preparation allowed for optimum visualisation of the bowel during screening colonoscopy.

Methods The data on 224 participants who had colonoscopy performed through the Bowel Screening Wales (BSW) programme at a LAC between January 2009 and January 2010 were analysed. Inclusion criteria were that the participant must have been prescribed either Picolax or Moviprep and that they had a complete colonoscopy with examination to the Caecum. Two hundred and five participants were included, 144 participants were prescribed Picolax and 61 participants were prescribed Moviprep. Nineteen participants were excluded from the audit because they either had a limited procedure such as flexible sigmoidoscopy, or were prescribed an alternative bowel preparation. To ensure robust statistical analysis data were obtained from both Screening Colonoscopist and Specialist Screening Practitioner reports. Bowel preparation was scored according to visual appearance during the colonoscopy procedure. The categories were classified into:

- Good
- Adequate
- Unsatisfactory

Results The cost of bowel preparation based on 220 procedures a year was calculated. Picolax cost £824.00 and Moviprep cost £1336.00 a year. Therefore the additional cost to the Health Board of using Moviprep each year would appear to be £512. However, the audit identified five participants that had been prescribed Picolax who needed repeat procedures at a cost of £3690.00, while in the Moviprep group only one participant needed a repeat colonoscopy due to unsatisfactory bowel preparation at a cost of £738.00. Moviprep allowed for greater examination of the right side of the colon and could, therefore, potentially incur a higher detection rate of polyps with the improved standards of preparation.

Conclusion Moviprep proved to be statistically more effective as bowel preparation for screening colonoscopy. Of the participants prescribed Moviprep 82% had a good standard of bowel preparation, whilst only 26% of participants prescribed Picolax had a good standard of bowel preparation. Following this audit Moviprep is now the first choice bowel preparation for screening colonoscopy within the Health Board, providing clinical and cost effective bowel preparation for screening participants.

Competing interests None declared.

Abstract PMO-215 Table 1

Standard	Picolax (%)	Moviprep (%)
Good	26	82
Adequate	70.5	16.4
Unsatisfactory	3.5	1.6

PMO-216 IS COFFEE GROUND VOMITING "HEMODYNAMICALLY" SIGNIFICANT?

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Introduction Coffee ground vomiting is defined as the passage of black material which is assumed to be blood. Its presence implies that bleeding has ceased or has been relatively modest.¹ It is therefore considered as low to medium risk upper GI bleeding compared to frank haematemesis and/or melena. Sign guidelines recommend admission and early endoscopy with Rockall score for patients above 60 years who present only with witnessed haematemesis or suspected continued bleeding.

Methods Aim: evaluate the outcome of coffee ground vomiting in patients above the age of 60 in our hospital. Retrospective analysis of all OGD's performed in our hospital over the last 3 years (December 2007–December 2011) using the endoscopy register (Endosoft). Patients with the indication of coffee ground vomiting, excluding associated haematemesis and/or melena were identified. Hb urea level and intervention at the time of the procedure were recorded.

Results Overall, 93 patients were identified. 73 patients were more than 60 years old, 46 females (64%) and 27 males (36%), 24 had ulcer or evidence of bleeding (32%), the causes of bleeding includes: gastric ulcers 6, duodenal ulcers 4, oesophageal ulcers 4, severe gastritis/oesophagitis 5, others 5. Endoscopic Interventions includes: adrenalin injection, banding, heat probe and endoclips. 11 patients (42%) had more than 1 gm drop in Hb while 17 patients (65%) had raised urea. On the other hand, 20 patients were 60 years old or less, three patients had ulcers or evidence of bleeding (15%), four females (20%)

and 16 males (80%), the cause of bleeding in all cases were gastric ulcers, two of them treated endoscopically with adrenalin and heat probe. Only one patient had more than one gm drop in Hb and raised urea.

Conclusion Increase age is an independent risk factor in the assessment of bleeding and is part of the Rockall score. In this small cohort, Patients above 60 years old presenting with coffee ground vomiting were predominantly females with around third had a major cause for upper GI bleeding requiring endoscopic intervention. Raised urea appear to be more significant parameter than drop in Hb. Coffee ground vomiting in this age group should be regarded as severe GI bleeding equivalent to haematemesis.

Competing interests None declared.

REFERENCE

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PMO-217 PREOPERATIVE ENDOSCOPIC BILIARY DRAINAGE AND SHORT-TERM CLINICAL OUTCOME FOLLOWING PANCREATODUODENECTOMY FOR PANCREATIC ADENOCARCINOMA: SITE-SPECIFIC FACTORS

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Introduction The role of preoperative endoscopic biliary drainage (PEBD) prior to pancreaticoduodenectomy (PD) remains controversial. We sought to determine the effects of PEBD on the short-term outcome of initially jaundiced patients undergoing PD for pancreatic adenocarcinoma in a regional Hepatopancreaticobiliary (HPB) Surgery unit.

Methods 100 consecutive initially jaundiced patients undergoing PD for histologically-confirmed pancreatic adenocarcinoma at our institution between 2006 and 2009 were identified from a prospectively maintained database. Patient demographics, perioperative serum bilirubin levels, surgical complications (Clavien classification), length of inpatient stay and in-hospital mortality were assessed. The use of PEBD, the location in which PEBD was performed, and time from PEBD to PD were ascertained. Three patient groups were defined: 1. No PEBD, 2. PEBD in HPB surgery unit (PEBD-HPB) and 3. PEBD in non-HPB surgery unit (PEBD-nHPB). Patients undergoing preoperative percutaneous biliary intervention were excluded from the study.

Results Mean patient age was 66 years (SD=11.9), M:F=56:44. 74/100 patients underwent PEBD prior to PD, of whom 53 (72%) patients underwent PEBD-HPB and 21 (28%) underwent PEBD-nHPB. In-hospital mortality did not significantly differ between the three patient groups. Mean preoperative serum bilirubin was significantly higher in No PEBD group ($p<0.01$). Mean length of inpatient stay and occurrence of documented infective wound complications were significantly higher in the PEBD-nHPB group vs PEBD-HPB and No PEBD groups ($p=0.035$). Mean time from PEBD to PD was significantly higher in the PEBD-nHPB vs the PEBD-HPB group ($p=0.045$).

Conclusion In this albeit small sample of patients, PEBD prior to PD did not significantly affect indicators of short-term perioperative morbidity and mortality. PEBD may be detrimental when performed in non-HPB surgical units. While increased time from PEBD to PD