

other to differentiate benign from malignant bile duct strictures. We examined the role of endoscopic transpapillary forceps biopsies (ETP) in the diagnosis of bile duct strictures of unknown etiology. Methods: In the present study, 325 patients (171 males, 154 females, mean age  $62 \pm 13$  years) with bile duct strictures of unknown etiology were examined by intraductal ultrasound (IDUS) and ETP. Histopathological correlation was available for 265 patients undergoing surgery. Sensitivity, specificity and accuracy of IDUS and ETP were compared with the definite diagnosis as proved by histopathology or long-term follow-up. The mean follow-up for benign strictures was 40.6 months (range 12 - 100 months). Statistical analysis was applied using SPSS 17.0. Results: Postoperative diagnosis revealed 25% pancreatic carcinomas, 25% bile duct cancers, 4% gallbladder cancers, 8% papillary carcinomas, 2% HCCs, and 36% benign bile duct strictures. Using endoscopic transpapillary forceps biopsies, a correct diagnosis was achieved in 219 of 322 patients (68% of cases). Among the 204 malignant tumors, diagnosis by ETP revealed a sensitivity of 51% and a specificity of 100%. ERCP supplemented by IDUS allowed for correct diagnosis in 90.4% of cases (291 of 322 patients), which was significantly higher than the accuracy of ETP ( $p < 0.001$ ). By combining IDUS with ETP, a correct diagnosis was made in 295 of 322 patients resulting in a sensitivity, specificity and accuracy of 96.3%, 84.7% and 91.6%, respectively. Conclusions: The exclusive use of ETP is not a reliable diagnostic tool for a definitive diagnosis of bile duct strictures with a sensitivity of only 51%, whereas IDUS shows excellent results for accurate diagnosis of bile duct strictures. In only 4 patients, ETP detected malignancy which was initially misclassified as benign according to IDUS. The number needed to diagnose malignancy with ETP is 80 - meaning that 80 patients have to be examined by ETP in order to diagnose one additional malignant bile duct stricture. We, therefore, conclude that ETP is of limited value for the diagnosis of bile duct stricture of unclear etiology.

#### Tu1504

##### Usefulness of Ileoscopy During Colonoscopy

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Introduction: Ileoscopy during colonoscopy adds only three minutes to total procedure time and has no added complications. However, available evidence for recommending the procedure is contradictory. There are few studies addressing this issue in South Asian populations. Aims: To investigate the usefulness of terminal ileoscopy during colonoscopy in a cohort of Sri Lankan patients attending a tertiary care centre. Methodology: From January 2007, our unit policy was to perform ileoscopy in all patients undergoing colonoscopy. A retrospective analysis of all patients who underwent colonoscopy in the unit from January 2007 to September 2010 was performed. Data were obtained from endoscopy unit and patient records. We compared usefulness of ileoscopy in patients considered to have specific clinical indications for ileoscopy - right iliac fossa pain, diarrhea, anemia, inflammatory bowel disease and raised inflammatory markers (group A) with those that did not (group B). Results: 789 colonoscopies were performed during the study period, and the terminal ileum was successfully intubated in 638 (80.9%). Reasons for not intubating the ileum were technical difficulty and/or severe patient discomfort. Overall, 108/638 (16.9%) patients had macroscopic or microscopic abnormalities of the ileum. 51/638 (8%) of these were considered to be significant ileal pathology: Crohn's disease (34), tuberculosis (5), ileitis-resolving infection (8) or drug induced (4). The other abnormalities, of doubtful clinical importance and which did not alter management, were backwash ileitis in ulcerative colitis (12), and non-specific ileitis (37). 35 patients with ileal abnormalities (Crohn's disease 6, non-specific ileitis 29) had no abnormalities in the colon. 66 patients with a macroscopically normal terminal ileum had abnormal microscopy: Crohn's disease (21), ileitis - resolving infection (3) or drug induced (2), backwash ileitis in ulcerative colitis (4), non-specific ileitis (36). In group A [ $n=511$ ; mean (SD) age 47.7 (16) years; 53.4% males] 47/511 (9.2%) had significant ileal pathology compared to 4/127 (3.15%) in group B [ $n=127$ ; mean (SD) age 53.2 (16) years; 50.4% males] ( $\chi^2 = 4.270$ ,  $df=1$ ,  $p=0.038$ ). Conclusion: Ileoscopy and biopsy during colonoscopy is a useful investigation which detects significant pathology, in some instances where the rest of the colon is normal and sometimes even when the ileum appears macroscopically normal. The procedure should be recommended, especially for patients with right iliac fossa pain, diarrhea, anemia, inflammatory bowel disease and raised inflammatory markers.

#### Tu1505

##### Effective and Convenient Gastric Preparation Method for Reducing Food Residue in Patients Who Have Undergone Subtotal Gastrectomy: A Prospective, Randomized Clinical Trial

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Background and objective: Food residue is observed in 18 to 42% of the patients who had undergone subtotal gastrectomy and endoscopic surveillance for remnant gastric cancer become incomplete in patients with the large amount of food residue. However, there has been no standardized preparation method on these patients. This study evaluated the effects of 2 regimens on the degree of preparation improvement and convenience of preparation. Methods: Eighty patients with grade 3 or 4 food residue were randomly divided into 2 groups: water-intake group ( $n=42$ ) and single-day medication group ( $n=38$ ). All patients had soft diet for lunch and fasted after lunch on the day before endoscopy. The water-intake group drank 150-200 mL of water at intervals of 10 minutes for a total of 1 L between 19:00-20:00 and single-day medication group took erythromycin, a potent motilin receptor agonist, 250mg and itopride hydrochloride, a drug with a dopamine D2-receptor antagonistic action and acetylcholinesterase inhibitory action, 50mg twice (13:00 and 19:00) on the day before endoscopy. The amount of food residue was assessed again within 4 weeks by endoscopic examination as well as convenience of the preparation. Results: There was no significant difference between the 2 groups for sex, age, body mass index, interval from gastrectomy to endoscopy, underlying disease, reasons of the surgery and reconstruction method. As results, no significant difference was noted between the 2 groups for mean percentage (85.7% vs. 92.1%,  $p=0.366$ ) and degree (2.31 vs. 2.29,  $p=0.928$ ) of preparation improvement. However, single-day medication group was significantly better than water-intake group for convenience of the preparation (84.7% vs. 49.5%,  $p=0.009$ ), especially in patients over 65 years ( $p=0.002$ ). Conclusions: Gastric preparation with single-day oral erythromycin plus itopride hydrochloride for endoscopic surveillance in subtotal gastrectomy patients was able to reduce the amount of food residue as effectively as water-intake method, but more convenient. Therefore, this preparation method could be more conveniently and safely applied to these patients, especially to the elderly and who are difficult to drink large amount of water in a short period, such as congestive heart failure, renal failure and liver cirrhosis.

#### Tu1506

##### A Randomized Controlled Study of EGD-Assisted vs. Standard Split-Dose Polyethylene Glycol Preparation for Inpatient Colonoscopy

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Background: Adequate bowel preparation is required for optimal colonoscopy. Intolerance to oral ingestion of large-volume purgative regimens is a frequent cause of poor bowel preparation in hospitalized patients. Aim: We compared the quality and patient tolerance of two regimens for bowel preparation prior to inpatient colonoscopy: EGD-assisted split-dose polyethylene glycol (EGD-PEG) and standard split-dose polyethylene glycol (standard-PEG). Methods: The study population consisted of inpatients in whom colonoscopy was indicated following a (negative) EGD for evaluation of GI bleeding. Patients were randomized to either EGD-PEG (1.5 to 2 L PEG administered endoscopically into distal duodenum plus 1 L PEG orally the following day, 4 hours prior to colonoscopy) or standard-PEG (2 L PEG orally the evening prior and 1 L PEG orally 4 hours prior to colonoscopy). Patient tolerability of prep was assessed via a standardized questionnaire. Prep quality was measured via the Ottawa bowel preparation scale. Results: 23 patients were randomized to EGD-PEG and 17 patients to standard-PEG. Mean patient age was  $72 \pm 13$  years. Overall mean preparation quality was superior for EGD-PEG ( $4.4 \pm 0.6$ ) vs. standard-PEG ( $6.6 \pm 0.8$ ;  $P=0.03$ ). 74% of patients rated EGD-PEG as easy or slightly difficult to tolerate compared to 36% for standard-PEG ( $P=0.02$ ). Two patients in standard-PEG group were unable to complete the prep compared to zero patients in EGD-PEG group. There were no prep-related adverse events in either group. Conclusions: In selected hospitalized patients, when compared to a conventional split-dose regimen, use of EGD to administer a portion of PEG solution for bowel cleansing improves patient acceptance and quality of bowel preparation for colonoscopy.