Conclusion: Histological evidence of GVHD was found in 49% of the BMT patients who underwent endoscopic evaluation. A large percentage of patients with biopsy proven GVHD initially presented with GI symptoms such as nausea, vomiting, and diarrhea; therefore, the presence of such symptoms is highly suggestive of underlying pathology and warrants an endoscopic evaluation. Rectosigmoid and upper endoscopic biopsies are equally sensitive in the diagnosis of acute GI-GVHD.

Best Diagnostic Endoscopic Approach in the Evaluation of Gastrointestinal Graft versus Host Disease

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Purpose: Gastrointestinal graft versus host disease (GI-GVHD) is a leading cause of morbidity and mortality in allogeneic bone marrow transplantation. The best diagnostic endoscopic site for GI-GVHD is debatable. We report our experience at our institution with these patients in terms of importance of diagnostic endoscopic site in patients with suspected GVHD and best diagnostic approach in making the diagnosis.

Methods: Each patient (N=235) who underwent allogeneic bone marrow transplantation (BMT) at our institution from 2000-2011 were enrolled in this retrospective study. Demographics, type of transplant, indication for endoscopy, endoscopic findings, site and results of biopsy were reported. Endoscopic findings of GI-GVHD were defined as sloughing of the mucosa, while histological evidence of GI-GVHD was made only if apoptotic bodies were seen in the crypt epithelium of the specimen.

Results: Of the 222 subjects, 111 patients (mean age 53.74±12.92 yrs; 55% male) underwent endoscopy following BMT. Of those, 149 patients were suspected to have SSN based on EUS findings and underwent a total of 184 EUS procedures. Locations of these lesions were esopha (n=33), gastroesophageal junction (n=10), stomach (n=89), duodenum (n=10), and colon (n=7). A total of 160 attempts at acquiring tissue were done, 66 with CB alone, 14 with FNA alone, 54 with FNA and CB and 26 with tunnel biopsies or endoscopic resection with or without EUS guided biopsies. In 13 patients a diagnosis other than SSN was made. Of the remaining 136 patients, tissue sampling was non-diagnostic in 11 (8.8%) and diagnostic of SSN in 120 (88.2%). Tissue was sufficient for accurate subclassification in 102 patients (75%) obtained via CB alone in 55, FNA alone in 6, FNA and CB in 27 and tunnel biopsies or endoscopic resection in 14 patients). Diagnosis was GIST in 62, leiomyoma in 43 and Schwannoma in 7 patients.

Conclusion: If SSN is suspected by endoscopic criteria, endoscopic tissue sampling confirms the diagnosis in the majority of cases and enables accurate sub-classification. EUS-guided CB may be particularly helpful in obtaining adequate specimens.

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Age Is the Only Predictor of Poor Bowel Preparation in the Hospitalized Patient

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Purpose: Poor bowel preparation leads to a need for repeated colonoscopy procedures, with resultant increased length of stays and health care costs. Few investigators have assessed these outcomes in hospitalized patients. Given these considerations, we sought to examine the prognosticating value of several key clinical variables on the likelihood of inpatient poor bowel preparation for colonoscopy.

Methods: The records of consecutive patients who underwent colonoscopy at our institution between January 1, 2006 and December 31, 2011 during hospitalization were retrospectively extracted from a dedicated electronic digestive endoscopic institutional database (Endoworks, Olympus, Center Valley, PA). Six individuals independently reviewed hospital charts with 10% of all entered data audited for validation by a separate data entry associate. Univariable and multivariable analyses using logistic regression were carried out assessing clinical variables assumed to possibly be predictive of a poor colonic preparation including gender, use of narcotics, heavy medication burden, comorbidities, history of previous abdominal surgery, marital status, patient with diabetes or a neurological disorder such as stroke, hemiplegia or dementia, as well as product used for bowel preparation and whether or not the bowel regimen was given as split or standard dose as well as time of endoscopy. Data collection and analyses were undertaken following approval and institutional oversight by the Institutional Review Board for the Protection of Human Subjects.

Results: Overall, 244 charts of patients undergoing colonoscopy during a hospitalization were assessed. Of those, 83 (34%) patients had poor bowel preparation. During endoscopic examination, the cecum was reached in 193 patients (79.1%). The mean age of the patients was 66 years, 133 were men (54.3%). In univariable analysis, the only clinical variable associated with a poor bowel preparation was advancing age (OR=1.03, 95% CI 1.01 to 1.05, p=0.002). In multivariable logistic regression analyses, it remained independently and significantly predictive (OR=1.026, 95% CI 1.006 to 1.045, p=0.008).

Conclusion: In this retrospective cohort analysis, age was found to be the only independent significant predictor of poor bowel preparation amongst hospitalized patients. Further studies are required to help identify and correct factors causing poor bowel preparation in the admitted patient.

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A Novel Polypectomy Evaluation Platform for the Objective Bench-top Testing of Submucosal Injectables to Improve the Safety and Efficacy of Polypectomy and Endoscopic Mucosal Resection

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Purpose: Many submucosal injection solutions have been studied for use in endoscopic mucosal resection (EMR) without a standard measure to compare these agents for superiority. Particularly of interest is which agents provide the best lifting ability, prolonged tissue elevation, and optimal barrier to avoid