

A Single Center Retrospective Review of Spiral Enteroscopy

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Abstract

Introduction: Spiral enteroscopy (SE) is a relatively new method of small bowel visualization. Its safety and efficacy has been reported in the training setting. Our aim is to present a series of SE procedures performed by two operators at a single tertiary care referral center.

Aims and Methods: A total of 57 patients between April and November 2008, 24 males and 33 females, mean age 60 (range 26-88 years), underwent SE. Indications included abnormal capsule endoscopy (40%), anemia (17%), obscure GI bleeding (14%), abdominal pain (10%), melena (8%), and abnormal imaging (3%). Less common indications were unexplained weight loss, chronic diarrhea, and recurrent small bowel obstruction. 25% of patients had altered anatomy, including Roux-en-Y gastric bypass (RYGB), small bowel resection, choledochojejunostomy, and a Whipple procedure. One procedure was performed as an ERCP in a patient with a known biliary stricture and stent. The device employed was the Discovery SB[®] (Spirus Medical[™], Stoughton, MA), an overtube with a raised 5mm spiral on its distal end. The Discovery SB was used with either the Fujinon (EN-450T5) or the Olympus (SIF-Q180) enteroscopes. 77% of patients underwent deep sedation with propofol, and the remainder required general endotracheal anesthesia.

Results: 54 procedures were successfully performed in 57 patients. Two procedures were unsuccessful due to sharp angulation in the stomach and one procedure was aborted due to respiratory instability. An average estimated depth of 246 ± 78 cm distal to the pylorus was achieved, corresponding to the proximal ileum. The excluded stomach was reached in 5 of the 7 patients with a RYGB. Average total procedure time was 28 minutes. 16 distinct abnormalities of the small bowel were identified in 51% of the cases. Findings included: arteriovenous malformations (26%), lymphangectasia (5%), mucosal changes (3.5%), diverticuli (3.5%), ileal strictures (3.5%), dilated jejunum, submucosal mass, polyps, afferent limb syndrome, excluded stomach gastritis, and adhesions. Interventions included 14 argon plasma coagulations, 8 biopsies, 8 India ink tattoos, 3 stricture dilations, and a biliary stent removal with stricture dilation. The overall complication rate was 7%. Two patients with a history of radiation enteritis had suspected perforation at the time of SE. Both patients underwent surgery and no perforations were identified.

Conclusion: SE is emerging as a valuable tool not only in large academic centers, but also in tertiary care referral centers. Our data provides the first example that demonstrates the utility of SE in a community-based hospital setting. Caution is advised with history of radiation enteritis.