

Single Physician Technique for Spiral Enteroscopy

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Abstract

Introduction: Spiral enteroscopy has been a two physician technique for deep small bowel enteroscopy. One physician operates the enteroscope and a second physician operates the overtube. Developing a single physician technique will allow more widespread access to the technology. Our hypothesis was that a physician experienced in spiral enteroscopy could direct a non-physician to operate the overtube.

Patients, Materials, and Methods: Eleven consecutive patients underwent enteroscopy in this prospective, nonrandomized, non-controlled pilot study. Informed consent was obtained as per IRB protocol. The Olympus SIF-180 enteroscope and the Discovery SB[®] from Spirus Medical[™] were used in each case. The Discovery SB is 118 cm long with a 5.5 mm raised hollow spiral 21 cm long at its distal end. The Olympus enteroscope is 200 cm long, 9.2 mm in diameter and has a 2.8 mm working channel. The four non-MD technicians had witnessed spiral enteroscopy but had never performed the procedure. The four supervising physicians had performed 10-100 spiral enteroscopies. Each team performed two or three procedures.

Findings: Average age was 42 years old (range 27-60); Primary indications for the procedure were anemia in five patients, suspected tumor in one patient, chronic abdominal pain and diarrhea in five patients. The average time to maximum depth of small bowel intubation was 27.6 min. (range 15-41). The average time of procedure was 41.7 min. (range 31-90). The average depth of small bowel intubation past the Ligament of Treitz was 314 cm (range 250-350). There were no serious complications. Four patients had superficial trauma at the Ligament of Treitz. Findings were one tumor, one patient with AVMs, and one patient with suspected celiac disease.

Conclusion: Spiral enteroscopy using the single physician technique accompanied by a non-MD technician was safe and effective. The times of procedure were slightly longer than previously published but the depths of small bowel intubation past the Ligament of Treitz were comparable. This study suggests technicians can be safely instructed by an experienced spiral enteroscopy physician to operate the Discovery SB overtube without increased risk of complication or decreased depths of intubation. We recommend consideration for the single physician technique when the physician has performed greater than ten procedures or when technique mastery is attained.