

High Failure Rate of Capsule Endoscopy When Performed After Spiral Enteroscopy

Akerman, Paul A.¹; Cantero, Daniel²

Rhode Island Hospital, Providence, RI, USA¹ – National Hospital of Paraguay, Asuncion, Paraguay²

Abstract

Introduction: Spiral enteroscopy is a technique for small bowel visualization that uses an over-tube with a raised spiral on its distal end to pleat small bowel when rotated. Deep small bowel intubation is seen but the entire small bowel has not been visualized. It was our hypothesis that performing small bowel capsule endoscopy immediately after a spiral enteroscopy (SE) would allow us to see the entire small bowel. Such data may be useful to estimate depth of insertion with SE and calculate a therapeutic efficacy for the SE.

Methods: Spiral Enteroscopy was performed in standard fashion. MAC anesthesia was performed with fentanyl, versed, and propofol. Atropine was used to control oral secretions during the procedure. At the point of maximal insertion Olympus endoclips were placed. Immediately after the SE was concluded capsule endoscopy was performed. The Given Capsule was grasped with a snare and endoscopically placed past the pylorus and released. The patients then returned 8 hours later for data retrieval. Standard instructions for reinstituting peroral nutrition were given.

Results: 4 patients had both procedures performed, 2 males and 2 females. Average weight was 75kg and average height was 171cm. Average MAC anesthesia doses were versed 5mg, fentanyl 113mg and propofol 268mg. One half milligram of Atropine was given to all patients. SE results were: average total procedure time 32 minutes, average time to maximal insertion was 15 minutes. Average depth of insertion was estimated to be 300cm (distal jejunum/proximal ileum). Findings were Peutz-Jaegers (PJ), polyps in the small bowel in one patient, all were removed endoscopically. The other 3 patients had normal enteroscopies. The capsule endoscopy results were: 0/4 reached the cecum. 1/4 may have reached the ileocecal valve. Additional small bowel polyps were not seen in the PJ patient. The other 3 cases were normal. 2/4 capsule studies did not reach the maximal insertion depth as judged by visualizing the Olympus endoclips.

Conclusion: The study was halted due to inability to visualize the entire small bowel 4/4 patients. In 2/4 patients the point of maximal endoscopic insertion was not reached. The use of atropine may have negatively affected our results. In this small study the use of the capsule endoscopy immediately after spiral enteroscopy did not add to patient management and did not assist in estimating depth of endoscopic insertion or therapeutic efficacy of the spiral enteroscopy. On the basis of this study of 4 patients we would recommend not using the capsule endoscopy immediately after the procedure.