

Title:

The double channel endoscope, a useful tool for advanced polypectomy

Background:

Endoscopic mucosal resection (EMR) of large colonic polyps not amenable to traditional polypectomy provides an opportunity to spare patients the morbidity and mortality of a colectomy. While this is an appealing technique it can be difficult, time consuming, and challenging to achieve an adequate polypectomy. The aim of this study is to describe a novel technique for EMR utilizing a double channel endoscope and present our techniques, complications, and outcomes.

Methods:

A single center retrospective review of our prospectively maintained database was performed. Consecutive patients who underwent a colonoscopy with intent to perform endoscopic mucosal resection with a double channel endoscope from November 2011 to March 2019 were reviewed. Polypectomy was achieved with a submucosal injection to lift the lesion followed by a grasp and snare technique using both channels. Closure of defects when performed used a biopsy forceps to oppose edges of mucosa while an endoscopic clip was deployed. Success rate of endoscopic mucosal resection, complications, polyp recurrence were examined.

Results:

A total of 41 patients were examined. Mean polyp size was 26mm +/- 11mm, with 85% (35/41) having a sessile morphology. All patients had a successful endoscopic polypectomy, with none needing step up to laparoscopic assistance or colectomy. Mean endoscopy time was 97 minutes, with 83% (34/41) completed with propofol infusion for anesthesia. A complication rate

of 15% (6/41) was observed, with 5 patients experiencing post polypectomy syndrome and 1 episode of bleeding. Final pathology showed no patients with invasive carcinoma and 2 with dysplasia. Follow up endoscopy was completed on 24/41 patients, with mean follow up of 349 days. Recurrence rate was 13% (3/24), all were managed endoscopically with final pathology showing no malignancy.

Conclusion:

The use of a double channel endoscope for endoscopic mucosal resection provides an additional tool which can be utilized to potentially spare patients a colectomy in the setting of an “unresectable” polyp. By presenting our series of cases utilizing this technique we hope to increase awareness of this tool and allow for other endoscopists to offer this technique for EMR to their patients.