COMMENTARY
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Is the Double Channel Gastroscope Useful in Endoscopic Mucosal Resection for Large Sessile Colon Polyps?

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See "Use of a Double-Channel Gastroscope Reduces Procedural Time in Large Left-Sided Colonic Endoscopic Mucosal Resections" by Evangelos Voudoukis, Georgios Tribonias, Aikaterini Tavernaraki, et al., on page 136-141.

Most colon polyps are less than 1 cm in size. However, endoscopists often encounter large sessile colon polyps greater than 2 cm in practice. Removal of a large sessile colon polyp is difficult due to a high rate of procedure-related complications, such as bleeding and perforation. Therefore, patients with large sessile colon polyps are referred to a tertiary hospital for appropriate treatment.

There are two usual endoscopic treatments for large sessile colon polyps: conventional endoscopic mucosal resection (EMR), and endoscopic submucosal dissection (ESD). ESD using various knives was initially introduced for the treatment of early gastric cancer, but has recently, been used for large sessile colon polyps. Theoretically, ESD is preferable to *en bloc* resection for better pathologic evaluation. However, because of high complication rates, ESD is not widely used for the treatment of large sessile colon polyps. Despite the advent of gastric ESD, piecemeal EMR is more widely used than ESD in such polyps. In Western countries, because of the technical difficulty and longer procedure time of ESD, piecemeal EMR is still the gold standard therapy for large sessile colon polyps >20 mm in diameter.[1]

Although many endoscopists are performing colonic EMR, little attention has been paid to reducing the procedure time, which can be a very important issue in high-volume centers. Longer procedure times may influence the work of physicians and other personnel in the endoscopy room.

One study reported that the total procedure time for EMR in patients with large sessile colon polyps (2 cm or larger) averaged 51.4 minutes (standard deviation, 25.6).[2] The mean size of the polyps was 34.2 mm, the perforation rate was 1.1%, and the post-EMR bleeding rate was 7.3%. Procedure time was measured from endoscope insertion to examination completion. In another large-scale study on ESD for large colon polyps, the mean procedure time was 116 minutes, with a mean tumor size of 35 mm; perforation occurred in 4.9%, and postoperative bleeding in 1.5%.[3]

In this issue of *Clinical Endoscopy*, Voudoukis et al.[4] present their experience with large (>2 cm) sessile or flat left-sided colon polyp resection, focusing on the benefits of the double channel (DC) gastroscope for EMR. In their retrospective series, they compared the procedure time using a DC gastroscope to that for a standard colonoscope or gastroscope (OS). They measured the EMR procedure time from first submucosal injection to just following polyp resection. This measurement method was different from that used by other researchers. The mean procedure time differed significantly between the DC group (33±21 minutes) and the OS group (58.7±20.6 minutes, p=0.015); in the subgroup of patients with polyps larger than 40 mm, the statistical difference in the mean procedural time between the two groups was even more pronounced (p=0.004). They suggest that use of a DC gastroscope for large non-pedunculated rectosigmoid lesions significantly reduces the procedure time.

A DC scope is sometimes used in a difficult colonic EMR, but is not widely used in a routine procedure. The primary technique using a DC scope is the simultaneous insertion of a forceps, which can grasp polyp tissue and pull it into position for snare polypectomy[5] or EMR; endoscopists can use the injection needle and snare at the same time with the DC scope.

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This might reduce the total operative time, and enable endoscopists to perform procedures without interruption. Nishizawa et al.[6] called it the "two-sword fencing" technique in ESD, which also saves the time of changing endoscopic devices. The "two-sword fencing" technique allows mucosal resection just after injection, before the collapse of the submucosal cushion. However, endoscopists must be careful when snare EMR using forceps, because the proper muscle is held inside the forceps. It is difficult to keep the dissection plane horizontal to the intestinal wall with ESD using a DC gastroscope. Information on use of a DC gastroscope would be useful in EMR or ESD for large sessile colon polyps.

This study has several important features. It is the first study in which the authors have compared the DC scope with single channel scopes in EMR for large sessile colonic polyps. However, as the authors state in their discussion, the number of patients was too small to be able to generalize the results of the study. In addition, the authors compared the DC gastroscope with single channel scopes. Upper endoscopy and colonoscopy were included in the single channel OS scope group, and should have been compared individually with the DC gastroscope. Finally, this retrospective study was conducted by a single experienced endoscopist. The procedure time might be dependent on the features of the endoscopist. A prospective study with multiple endoscopists will be needed.

Conflicts of Interest

The author has no financial conflicts of interest.

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