

Transanal submucosal endoscopic resection: a new endosurgical approach to the resection of giant rectal lesions



Fig. 1 Transanal passage of an endoscope and two laparoscopic retractors using the GelPoint Path platform (Applied Medical, Rancho Santa Margarita, California, USA).

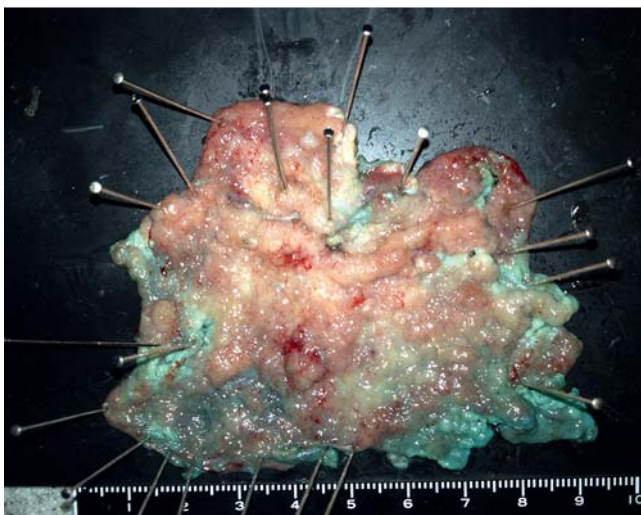


Fig. 2 Pinned out specimen following transanal submucosal endoscopic resection approach.

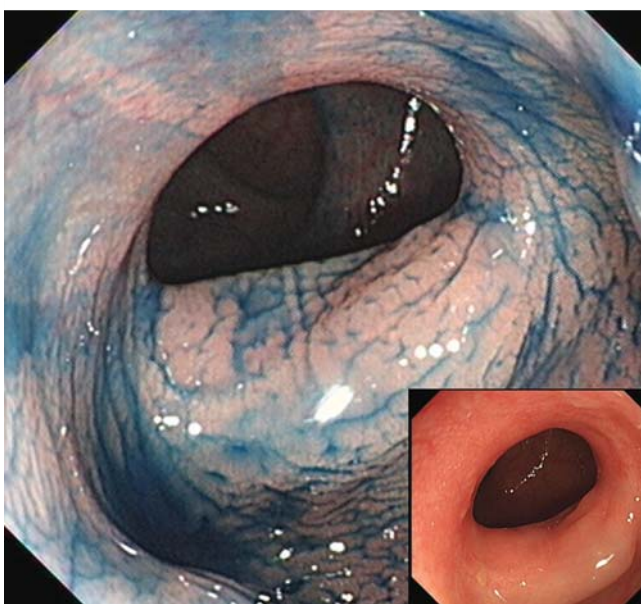


Fig. 3 Post-transanal submucosal endoscopic resection scar, with no residual polyp on white light endoscopy with indigo carmine.

Transanal surgical and advanced endoscopic resection procedures have the potential to provide complete and successful eradication of rectal lesions [1–3]. However, both approaches have limitations in terms of practicability and safety [3–5]. Transanal submucosal endoscopic resection (TASER) is a new endosurgical approach, which combines the advantages of both endoscopic therapy and transanal surgery. It utilizes a three-port channel platform (GelPoint Path; Applied Medical, Rancho Santa Margarita, California, USA), which allows simultaneous transanal passage of an endoscope and two laparoscopic instruments (● Fig. 1).

We present a video clip demonstrating TASER, where an endoscopic knife is used as the primary cutting tool to resect a (9.4×7.6 cm) circumferential (abutting the dentate line to the upper rectum), benign, nongranular, lateral spreading tumor (● Fig. 2).

A 2-mm lateral resection margin around the lesion was maintained during circumferential mucosal incision. The GelPoint Path system was then mounted across the anal canal and a surgeon passed two laparoscopic forceps retractors (Johann Forceps 33 cm; Karl Storz, Tuttlingen, Germany) into the rectum, working alongside the endoscopist who passed a gastroscope through the third port; both operators utilized the endoscopic view. Once a tissue flap had been created, the submucosal dissection was rapid, using long sweeping movements of the endoscopic knife (FlushKnife BT, 1.5 mm; Fujifilm, Tokyo, Japan) parallel to the underlying muscle. Repeated injections expanded the submucosal plane and sustained a clear separation of the submucosal and muscle layers. The retractors could be repositioned multiple times and in any direction, providing the endoscopist with a continuous view of the submucosal plane (● Video 1). The en bloc resection was completed in 182 minutes. Large vessels were coagulated and clipped to prevent delayed bleeding. After a 6-month interval, a check-up endoscopy showed a healed scar with no signs of recurrence or rectal stricture (● Fig. 3).

Video 1

Transanal submucosal endoscopic resection: a new endosurgical platform for the en bloc resection of giant, benign, rectal polyps.

The TASER approach appears to be technically easier and fundamentally safer than conventional transanal surgery and advanced endoscopic therapy for the resection of giant (>5 cm) rectal polyps.

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Competing interests: None

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