



Clinical Case Study



Speedboat Submucosal Dissection (SSD) Using Advanced Energy on a Mid-Rectal Lateral Spreading Tumour with Focal Depression

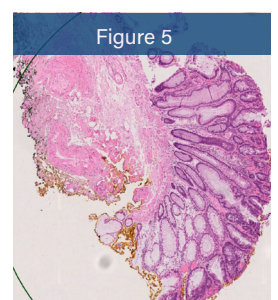
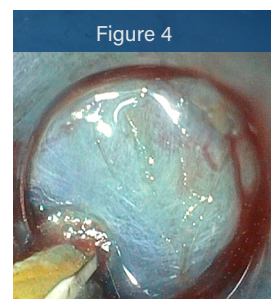
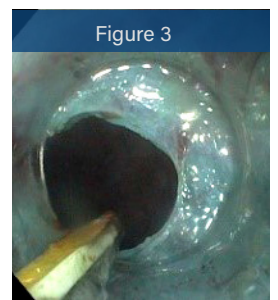
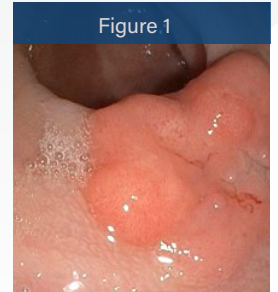
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Patient History

A 70-year-old man with rectal bleeding and positive FIT was referred for colonoscopy, which picked up a 30 mm mid-rectal lateral spreading tumour with focal depression (LST NG-D) (fig. 1).



The case was discussed at the local multidisciplinary meeting where it was felt that the lesion may harbour high grade dysplasia and en bloc resection should be attempted. The patient was counselled on risk, benefits and alternatives, and consented to undergoing submucosal dissection of the lesion.



Procedure

- Speedboat Submucosal Dissection (SSD) of the lesion was performed. The polyp was re-assessed on the day of the procedure and was felt to be benign, likely a high-grade adenoma (JNET IIb pattern observed in areas).
- A conical hood attachment was used throughout the resection (fig. 2). The oral aspect of the lesion was "lifted" with a combo of Orise® gel and EMR solution (N/S 0.9%, gelofusine, methylene blue, adrenaline 1:100000) and mucosal dissection of the oral side of the lesion was performed. The anal side of the lesion was then "lifted" and mucosal dissection was undertaken.
- Subsequently, submucosal dissection was performed starting from the anal side of the lesion, reaching the oral mucosal opening (tunnelling technique) (fig. 3). Thereafter, mucosal incision of the gravity dependent side was undertaken, followed by "inside out" dissection until 60-70% of the gravity dependent side of the polyp and underlying submucosa was dissected. Mucosal incision and submucosal dissection of 60-70% of the non-gravity dependent side was then undertaken.
- Clip-and-line traction was applied to facilitate completion of the resection, in a total of 2h 15m. Intraprocedural haemostasis was undertaken successfully, when required, with the Speedboat Inject device microwave feature (fig. 4).
- Microwave coagulation was also applied to a few prominent vessels on the defect, following resection.
- A single clip was placed on a visible muscle split, followed by application of 3 ml of haemostatic gel (PuraStat®). The polyp was retrieved with the help of the hood. The patient was discharged 1 hour later. No delayed complications were observed.

Outcome

- En Bloc resection of the lesion was achieved. Histology spoke of a high-grade tubular adenoma (fig. 5).
- No intraoperative/delayed complications were noted. This was a day-case procedure (same day discharge).

Conclusion

- This case highlights that SSD is an efficient technique for safe en bloc resection (fig. 6) of advanced polyps of the colorectum. Alternatives for this lesion would be piecemeal EMR (due to size, en bloc resection would be very difficult to achieve with a snare) that would have led to histopathological confusion with regards to completeness of resection, and TEMS/TAMIS (procedures requiring general anaesthetic and, often, in-hospital stay).

