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Management of long post-radiation esophageal strictures by means of endoscopic submucosal dissection

Dear Editor

We read with interest the article by Perbtani et al [1], presenting the endoscopic management of 6 patients with complete post-radiation esophageal obliteration. Four patients presented short strictures (<3 cm), and were managed with combined antegrade-retrograde approach, with the help of a 19-gauge endoscopic ultrasound (EUS) needle, under fluoroscopic guidance and translumination. In 2 cases with longer strictures (4 cm and 5 cm, respectively), the authors successfully used a submucosal tunneling technique with repeat injections of saline/indigo carmine and dissection with a T-Type Hybrid Knife (ERBE).

The presentation of this case series is followed by a review of the literature concerning all published techniques for the management of complete post-radiation esophageal strictures. In most reports the strictures were short (<3 cm). Devices/techniques used for recanalization included the following: needle knife, guidewire, balloon dilation, forceps, EUS needle,

sclerotherapy needle and the T-Type Knife.

What we would like to comment on is the advantage of endoscopic submucosal dissection in the management of long strictures. Such a technique offers direct visualization of the recanalization procedure, in contrast to the aforementioned techniques, which are blind, with high risk of perforation and injury to surrounding critical structures.

We have previously published a report on a case of total esophageal recanalization [2], which was not included in the review by Perbtani et al, in a patient with a post-radiation stricture extending from the hypopharynx to the Z line (>25 cm in length). In brief, a standard endoscope was advanced through the preexisting gastrostomy track; the submucosal space separating the muscular layers of the esophagus was enlarged by injection of a mixture of a gelatin plasma substitute methylene blue and epinephrine; and progression and recanalization toward the upper esophagus was obtained with a 1.5-mm Dual Knife (Olympus) using spray coagulation (ERBE, VIO300) under permanent visual control. Antegrade transillumination was necessary only for the proximal 2 cm of the hypopharynx due to altered anatomy. At 2 years of follow up the patient is able to eat mixed meals and undergoes periodic dilations of the upper esophagus and hypopharynx. Endoscopists should be aware of this technique, which based on our experience is safer

than blind dissection and it is not limited by the length of the stricture.

Competing interests: None

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References

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- 2 Mavrogenis G, Moreels TG, Chevaux JB et al. Recanalization of a complete postradiation esophageal obstruction with endoscopic submucosal dissection techniques. *Gastrointest Endosc* 2015; 81: 1476

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