Endoscopic therapy of Zenker’s diverticulum using a novel endoscopic scissor – the Clutch Cutter device

Zenker’s diverticulum is a diverticulum of the mucosa of the pharynx above the cri- copharyngeal muscle, which often causes clinical symptoms including dysphagia, re- gurgitation, cough, and halitosis [1]. Endoscopic therapy is based on cutting the septum between the diverticulum and the esophageal lumen. A variety of endoscopic methods have been used for this procedure, including laser, stapler, harmonic scalpel, argon plasma coagulation, and needle-knives [1 – 4]. Here, we describe the use of a novel device, which was originally developed for endoscopic submucosal dissection (ESD), for the rapid and safe treatment of Zenker’s diverticulum.

The Clutch Cutter (Fujifilm, Tokyo, Japan) was introduced to the European market in late October 2014 and is a forceps-type resection device for ESD. The device has a serrated cutting edge that is 0.4mm wide and 3.5mm long. The device is rotatable, and the outer side of the forceps is insulat- ed to avoid burning the surrounding tis- sue. The device has a diameter of 2.7mm and is compatible with most conventional endoscopes. For electrocautery, the Vio 200 D-system (Erbe, Tübingen, Germany) was used, with the following settings: Forced coagulation 30W, Endo Cut Q with effect 1, duration 3, interval 1.

A 79-year-old woman presented with a 2-month history of regurgitation and dys- phagia. A single-channel endoscope (GIF 1TQ160; Olympus, Tokyo, Japan) was carefully advanced through the esophagus with the patient under conscious sedation. Directly below the upper esophageal sphincter, the Zenker’s diverticulum could be seen clearly, and the defect was also highlighted by the barium swallow exami- nation (Fig. 1c). Electrocautery was applied, and the procedure was repeated until the entire septum had been cut through (Fig. 1d). The Clutch Cutter device allowed the selective grasping and cutting of the muscle fibers. Neither bleeding nor any post-procedural complica- tions occurred. The total procedure time was 6 minutes.

The nasogastric tube was kept in place for 2 days. Oral feeding recommenced after removal of the nasogastric tube, starting with a soft diet for the first 3 days. Follow-up endoscopy 2 days after the procedure revealed a significant improvement. In conclusion, this case illustrates the potential of the new Clutch Cutter instrument for rapid and safe endoscopic treat- ment of Zenker’s diverticulum. A multi- center study in a prospective setting is now highly warranted to evaluate the device.

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Video 1

Rapid and safe endoscopic treatment of Zen- ker’s diverticulum using a new cutting device.
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**References**


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