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]. Endo-
scopic therapy is based on cutting the
septum between the diverticulum and the
esophageal lumen. A variety of endoscopic
methods have been used for this pro-
cedure, including laser, stapler, harmonic
scalpel, argon plasma coagulation, and
needle-knives [1–4]. Here, we describe
the use of a novel device, which was origi-
nally developed for endoscopic submuco-
sal 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 0.4 mm wide
and 3.5 mm 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 2.7 mm
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 30 W, 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. Oral feeding recommenced after
removal of the nasogastric tube, starting
with a soft diet for the first 3 days. Fol-
low-up endoscopy 2 days after the proce-
dure revealed a significant improvement.

In conclusion, this case illustrates the po-
tential of the new Clutch Cutter instru-
ment 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.

After inspection of the duodenum and the
stomach, the endoscope was withdrawn
and a conventional feeding tube was
placed through the nose of the patient. A
clear 4 mm distal cap (MH-464; Olympus)
was attached to the endoscope, which
was then reintroduced, and correct place-
ment of the feeding tube in the gastric an-
trum was confirmed. Next, the endoscope
was placed in front of the septum be-
 tween the Zenker’s diverticulum and the
esophageal lumen, and the Clutch Cutter
was advanced through the working chan-
nel of the endoscope. The forceps of the
Clutch Cutter was opened and pushed
against the septum in order to grasp the

Figure 1

Zenker’s diverticulum.

Endoscopic view.

Barium swallow examination.

The Clutch Cutter
was used to dissect the septum of the diverticulum.
The scissor-like device allowed the selective
grasping and cutting of the muscle fibers.

Video 1

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