In recent years, endoscopic procedures such as endoscopic full-thickness resec-
tion (EFTR) and submucosal tunneling
doscopic resection have been used to
resect submucosal lesions [1]. Submuco-
sal tunneling endoscopic resection is an
adaptation of both the peroral endoscopic
myotomy and endoscopic submucosal
dissection techniques. We present a
case of a submucosal lesion resected
using submucosal tunneling endoscopic
resection with a double-sided approach.
A 69-year-old woman was referred for a
large submucosal gastric lesion (8 cm).
The patient was not a surgical candidate
because of pre-existing cardiopulmonary
comorbidities. The patient underwent
general anesthesia for the procedure. It
was determined that EFTR would be risky
due to lesion size. Thus, the decision
was made to proceed with submucosal tun-
neling endoscopic resection (▶ Video 1).

The gastric lesion was visualized in the
fundus using a GIF-H180 endoscope
(Olympus Corporation, Tokyo, Japan). A
submucosal bleb was made with an in-
jection needle filled with a saline and me-
thylene blue solution. Afterwards, a mu-
cosal incision was made in retroflexion
using a HybridKnife (Erbe Elektromedi-
zin, Tübingen, Germany) in order to cre-
ate an opening for tunneling. The endo-
scope was advanced and continued sub-
mucosal dissection was performed with
the HybridKnife to expose the lesion.
Vessels were coagulated using the
HybridKnife or a coagulation grasper
(Olympus).

Due to large size of the lesion, tunneling
from the opposing side was necessary
(▶ Fig. 1) to allow for performing the re-
main ing dissection. Subsequently, the
lesion was resected en bloc; however,
due to the size of the lesion, the removal
was performed on two separate pieces
with a snare and a Roth basket.

Finally, the defect was then closed with
hemostatic clips. No adverse events oc-
curred. The patient was started on oral
feeding early the next day and was dis-
charged home. Histologic examination
of the lesion revealed that the tumor
was a completely resected leiomyoma.

Submucosal tunneling endoscopic resec-
tion is an evolving technique for the re-
section of upper gastrointestinal sub-
mucosal tumors. It has advantages in
maintaining gastrointestinal tract muco-
sal integrity [2]. In the present case, we
successfully removed a large submucosal
lesion using a double-sided technique of
submucosal tunneling endoscopic resec-
tion. As far as we know, this is the first re-
ported case that has used a double-sided
approach to resect a lesion.

Competing interests

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from Boston Scientific, Fujinon, EMcision, Xlu-
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