

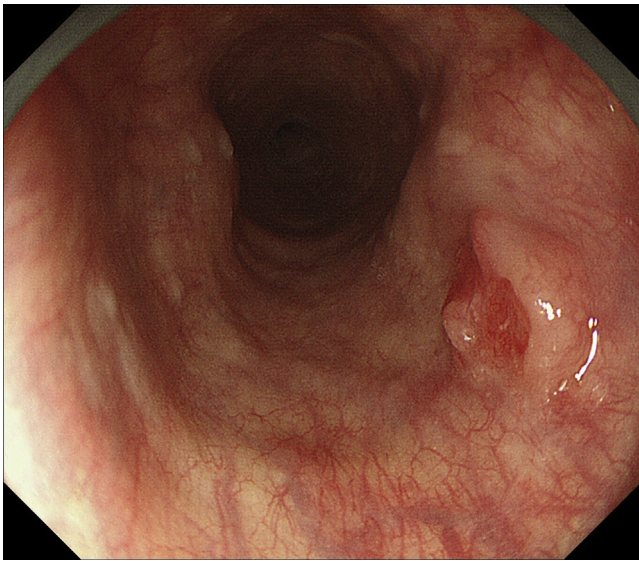
## A small adenocarcinoma in the cervical esophagus

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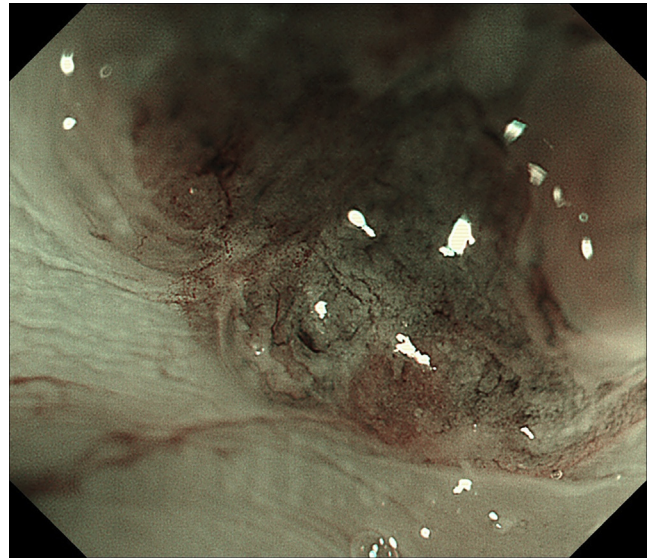


A 72-year-old man underwent EGD during an annual health checkup. Endoscopy showed an irregularly shaped small elevated lesion with a central depression in the cervical

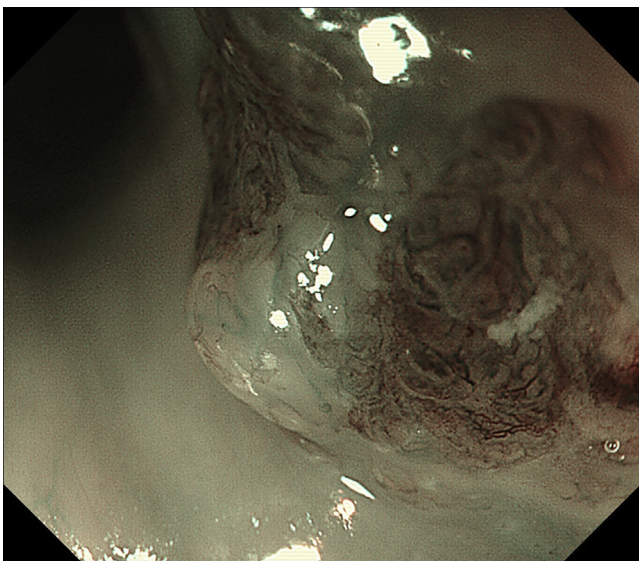
esophagus (Fig. 1; Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)). Magnifying endoscopy with narrow-band imaging revealed irregular microvessels (Fig. 2). After the lesion was sprayed with acetic acid, magnifying endoscopy with



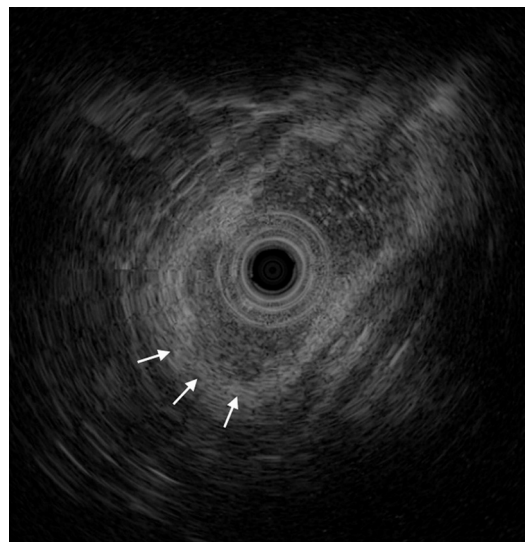
**Figure 1.** Endoscopic view showing an irregularly shaped small elevated lesion with a depression in the cervical esophagus.



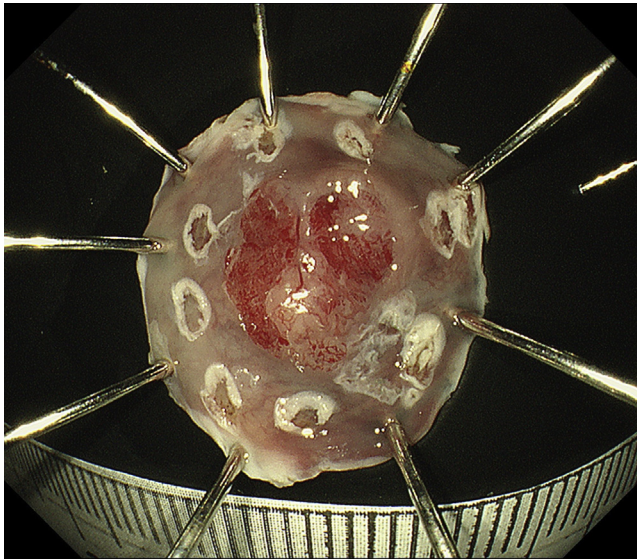
**Figure 3.** Magnifying endoscopic view with narrow-band imaging and acetic acid spraying showing an irregular microstructure in the lesion.



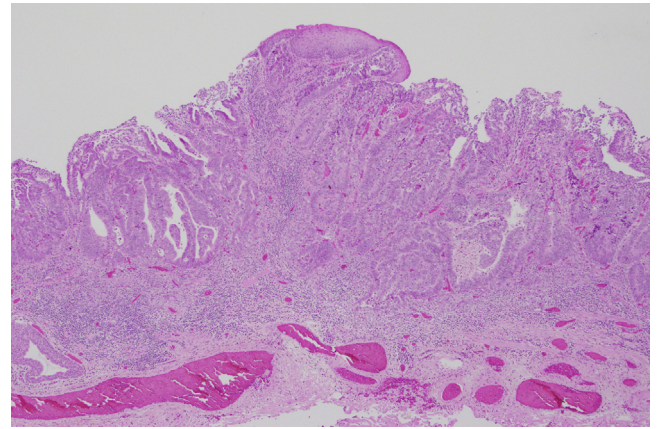
**Figure 2.** Magnifying endoscopic view with narrow-band imaging showing irregular microvessels.



**Figure 4.** EUS view showing a low echoic lesion confined to the mucosa and shallow submucosa.



**Figure 5.** En bloc resection of lesion, 8 mm in diameter, by endoscopic submucosal dissection.



**Figure 6.** Histopathologic diagnosis of invasive well-differentiated tubular adenocarcinoma.

**TABLE 1. Clinicopathologic summary of endoscopic resection cases of adenocarcinoma of the cervical esophagus**

Study	Journal	Age Sex	Shape	Color	Magnifying endoscopy	Size (mm)	Treatment	Histopathology	Depth	Course (month)
Pech et al, 2001 <sup>1</sup>	Gastrointest Endosc	77 M	Type II	Reddish	—	20	EMR	WEL	pT1a-MM	NR (12)
Hirayama et al, 2003 <sup>2</sup>	Gastrointest Endosc	77 F	0-Ip	—	—	21	EMR	WEL/PAP	pT1a-LPM	NR (31)
Yoshida et al, 2010 <sup>3</sup>	Clin Gastroenterol Hepatol	79 M	Polypoid	Reddish	IMV	4	EMR	MOD	pT1a	NR (24)
Nonaka et al., 2013 <sup>4</sup>	Endoscopy	74 M	Elevated	—	IMV, IMS	7	ESD	Adenocarcinoma	pT1a-MM	—
Möschler et al, 2014 <sup>5</sup>	Endoscopy	83 M	Type IIa	—	—	—	EMR	WEL	pT1a	—
Yasar et al, 2014 <sup>6</sup>	J Gastrointest Cancer	52 F	Polypoid	—	IMV, IMS	7	EMR	WEL	pT1a	NR (3)
Nomura et al, 2015 <sup>7</sup>	Clin J Gastroenterol	62 M	0-IIb	Reddish	IMV	49	ESD	WEL	pT1a-MM	NR (12)
Kadota et al, 2016 <sup>8</sup>	Exp Rev Gastro	78 F	0-Is+Ilc	—	IMV, IMS	19	ESD	MOD	pT1b (3.75 mm)	—
Gushima et al, 2017 <sup>9</sup>	J Gastrointestin Liver Dis	65 F	0-I	Reddish	IMV, IMS	16	ESD	MOD	pT1b	NR (40)
Tanaka et al, 2018 <sup>10</sup>	Gastroenterology	69 F	0-IIa	—	IMV, IMS	10	ESD	WEL	pT1a-EP	—
This case		72 M	0-IIa+Ilc	Reddish	IMV, IMS	8	ESD	WEL	pT1b (0.5 mm)	NR (24)

—, Undescribed; ESD, endoscopic submucosal dissection; IMS, irregular microstructure; IMV, irregular microvessels; MOD, moderately differentiated adenocarcinoma; NR, no recurrence; PAP, papillary differentiated adenocarcinoma; WEL, well-differentiated adenocarcinoma.

narrow-band imaging clearly revealed an irregular microstructure in the lesion (Fig. 3). EUS showed a low echoic lesion that was confined to the mucosa and shallow submucosa (Fig. 4). Pathologic examination of biopsy specimens indicated a tubular adenocarcinoma. The lesion, 8 mm in diameter, was resected en bloc by endoscopic submucosal dissection

(Fig. 5). Histopathologic analysis showed atypical glands with enlarged hyperchromatic nuclei invading the shallow submucosa approximately 0.5 mm from the muscularis mucosa. A histopathologic diagnosis of invasive well-differentiated tubular adenocarcinoma was finally established (Fig. 6). Esophageal heterotopic gastric mucosa was

considered to be the origin of this lesion because there was another small lesion composed of heterotopic gastric mucosa nearby. At the time of this report, the patient has rejected additional treatment and is alive without recurrence 24 months after the endoscopic treatment.

Superficial adenocarcinoma within the cervical esophagus and unrelated to Barrett's esophagus is extremely rare. However, there have been previous reports of a few cases of cervical esophageal adenocarcinoma. Of those, including this case, endoscopic treatment was administered in only 11 cases (Table 1).<sup>1-10</sup> Most of those lesions were elevated, and nearly half had a reddish color noted on endoscopic examination. In 8 patients who underwent magnifying endoscopy, the findings were irregular microvessels and/or irregular microstructures, similar to those of early gastric cancers.<sup>3,4,6-10</sup> Histopathologically, almost all cases of adenocarcinoma were differentiated adenocarcinomas.

In conclusion, careful observation of the cervical esophagus could lead to the detection of a superficial adenocarcinoma. Furthermore, endoscopic resection could be an option for a pathologic investigation of small superficial adenocarcinomas in the cervical esophagus that would result in an accurate diagnosis.

## DISCLOSURE

*All authors disclosed no financial relationships relevant to this publication.*

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