

Endoscopic management of mucosal incision site dehiscence following peroral endoscopic myotomy

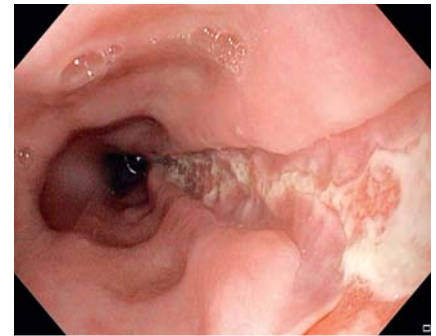
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► **Fig. 1** Plain radiograph of chest showing no mediastinal collection.



► **Fig. 3** Dislodgement of clips and opening of mucosa with needle knife on Day 6 post-procedure.



► **Fig. 4** Endoscopic evidence of development of granulation tissue with healing sign on Day 9 post-procedure.



► **Fig. 2** Mucosal incision dehiscence with seropurulent discharge on upper gastrointestinal endoscopy.

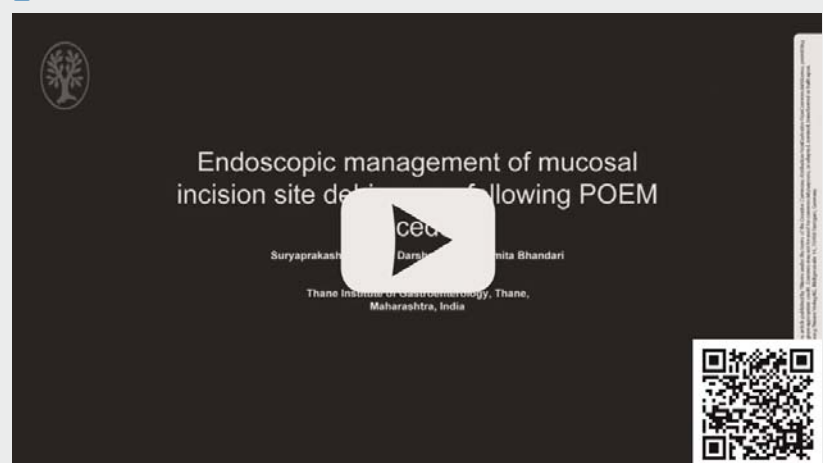
sics. A plain radiograph of the chest showed no mediastinal collection (► **Fig. 1**). Upper gastrointestinal endoscopy revealed mucosal incision dehiscence (MID) with seropurulent discharge (► **Fig. 2**). The patient's submucosal tunnel showed signs of inflammation and infection, although the myotomy (muscle layer) had healed completely. There was no mediastinal leak. We removed the clips and washed the submucosal tunnel, after which the incision was reapproximated with endoclips. A naso-jejunal

tube was placed for feeding and the patient was given intravenous antibiotics. Despite treatment, the patient continued to have a fever. Endoscopy on Day 6 post-procedure again showed MID with seropurulent discharge. We decided to dislodge all the clips and laid open the submucosal tunnel open by cutting the whole mucosa with a needle knife (► **Fig. 3**), using a blend endoCUT current to make the mucosal incision and forced coagulation to control bleeding whenever required (OLYMPUS ESG-100, effect

Peroral endoscopic myotomy (POEM) is an acclaimed technique for achalasia cardia management that is increasingly being practiced all over the world. Its known complications are mucosal injury, esophageal perforation, substantial bleeding, subcutaneous emphysema, capnothorax, capnomediastinum, capnoperitoneum, and pleural effusion [1, 2]. We report an extremely rare, uncommon POEM complication and its management with fundamental surgical principles.

A 39-year-old male underwent POEM for primary achalasia cardia. On Day 3 post-procedure, he developed a fever spike and retrosternal pain requiring analge-

▶ VIDEO



► **Video 1** Complete mucosal healing on Day 17 post-procedure.

2, 30 W). The principle was adequate pus drainage to allow mucosal healing by secondary intention to prevent mediastinal leak due to persistent infection. Subsequent endoscopy on Day 9 post-procedure showed development of granulation tissue with healing signs (► **Fig. 4**) and complete mucosal healing on Day 17 (► **Video 1**).

Conclusions

In conclusion, MID is a rare complication of POEM, which occurred in the present case most probably because inappropriate clip application prevented ideal closure. Watertight closure of a mucosal incision is imperative to prevent this complication. Complete mucosectomy (in the absence of muscle defect) is a safe, effective option for preventing hazardous mediastinal leaks.

Competing interests

The authors declare that they have no conflict of interest.

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Acknowledgement

This video won the silver medal in the 2020 American Society for Gastrointestinal Endoscopy Digestive Disease Week Endoscopy World Cup.

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