

## Unexpected Esophageal Mucosal Defects After Peroral Endoscopic Myotomy (POEM)

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### 1. Case Report

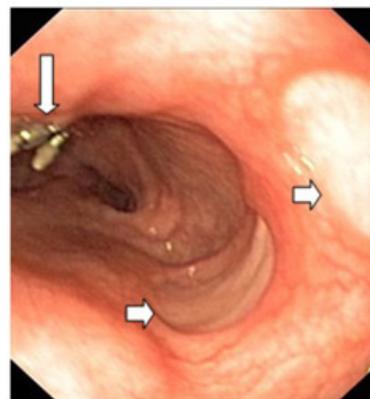
Peroral endoscopic myotomy (POEM) is a promising treatment for achalasia cardia that requiring submucosal tunneling [1]. The important concept to prevent its complication is to stay away from the mucosa during making the tunnel. Although, pneumoperitoneum or pneumomediastinum was developed from the defect at longitudinal muscle layer, there is no clinical significance if the mucosal flap remains intact [1, 2]. However, if the mucosal defect occurs, tight mucosal closure with clips is recommended to avoid leakage of esophageal content into the mediastinum [2].

A 32-year-old woman has been diagnosed achalasia cardia type II and undergone peroral endoscopic myotomy (POEM) by anterior approach since 2014. A few mucosal blebs were reported at the tunnel wall right after the procedure. The patient was discharged without complication but she did not come for a follow-up. One year later, she presented back because of recurrent dysphagia. Esophageal manometry confirmed achalasia cardia type II and re-POEM was scheduled.

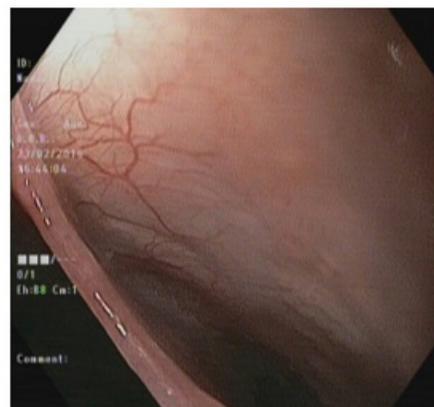
EGD was performed and revealed two round-shaped mucosal defects (short arrows) at 5 cm below the previous mucosal incision site (Figure 1). Both defects are not connected and the tunnels were too small for the scope to get inside (Figure 2). Re-POEM was done successfully at the opposite site (Figure 1), long arrow).

This case highlights the rare long-term consequent of POEM. Usually, mucosal defect can be seen during POEM procedure and treated at the same session. In this case, mucosal defects were incidentally found at 1 year after POEM. It may result from bleb formation and the future of bleb could end up with defective esophageal muco-

sa inevitably. Therefore, if mucosal bleb developed during POEM, complete myotomy should be avoided at the level of mucosal bleb to prevent serious complication.



**Figure 1:** Two round-shaped mucosal defects (short arrows) and re-POEM at the opposite site of mucosal defects (long arrow).



**Figure 2:** Boarder of one mucosal defect of which the scope cannot get inside

## References

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