Esophageal hematoma after peroral endoscopic myotomy for achalasia in a patient on antiplatelet therapy

Fig. 1 X-ray computed tomography shows a hematoma of the lower part of the esophagus in a 59-year-old woman on antiplatelet therapy after she underwent peroral endoscopic myotomy (POEM) for type II achalasia. **a** Sagittal section. **b** Axial section.

Table 1 Reports of delayed bleeding after peroral endoscopic myotomy (POEM).

	Ren et al. [2] (n = 119)	Li et al. [3] (n = 428)	Von Renteln et al. [4] (n = 70)	IPOEMS [5] (n = 841)	Our center (n = 61)
Delayed bleeding, n (%)	1 (0.8)	3 (0.7)	2 (3)	8 (<1)	1 (1.6)
Hematemesis	1/1	3/3	NR	NR	0/1
Thoracic/epigastric pain	1/1	1/3	NR	NR	1/1
Hemoglobin decrease	NR	10–15 g/L	NR	NR	32 g/L
Emergency endoscopy	1/1	3/3	1/2	NR	0/1
Blood transfusion	NR	0/3	NR	8/8	0/1
Continuous anti-platelet therapy	0/1	0/3	0/2	0/2	1/1
Sequelae	0/1	0/3	0/2	0/8	0/1

IPOEMS, International Per Oral Endoscopic Myotomy Survey; NR, not reported.

Peroral endoscopic myotomy (POEM) appears to be a successful technique for the treatment of achalasia [1]. Only a few cases of delayed bleeding have been described [2]. Here, we report a case of esophageal hematoma that developed 1 day after a patient on acetylsalicylic acid (ASA) therapy underwent POEM. A 59-year-old woman with type II achalasia was referred for a POEM procedure. She had a past history of two transient ischemic attacks, which justified continu-

ous therapy with 75 mg of ASA per day. Local hemostasis for small areas of muscular hemorrhage was performed with a diathermy forceps. The 16-cm tunnel was closed with five clips. In the following hours, the patient experienced severe epigastric pain, and the next morning, her hemoglobin level had dropped from 144 to 112 g/L. She did not have any hematemesis, melena, or hemodynamic instability. A computed tomographic scan showed a large, limited

hematoma measuring 34 by 110 mm within the tunnel (● Fig. 1), which was closed adequately by the clips.

We decided to manage this hematoma conservatively without removing the clips. At day 3, another computed tomographic scan showed a 10-mm decrease in the hematoma. The patient's condition remained stable, and neither endoscopic hemostasis nor blood transfusion was needed. She was discharged 8 days after the procedure. Her long-term course was favorable, with total resolution of the dysphagia.

The risk-to-benefit ratio of POEM depending on various conditions is not known, especially in patients on antiplatelet therapy. Delayed bleeding after POEM is a rare adverse event. To our knowledge, very few cases have been described until now (● Table 1). A conservative treatment can be considered if neither blood exteriorization nor hemodynamic instability is present. Delayed bleeding does not seem to affect the long-term efficacy of the procedure. ASA may increase the risk for bleeding and should be stopped temporarily if possible. If not, the careful preventive coagulation of visible vessels in the tunnel should be performed before it is closed.

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