

## Sclerotherapy-associated esophageal hematoma in a patient with myelofibrosis and portal hypertension



**Fig. 1** After an endoscopic ligation procedure for esophageal varices, small bluish lesions are observed during withdrawal of the endoscope.

A 71-year-old woman with primary myelofibrosis and esophageal varices was admitted for her first rubber band ligation procedure (platelet count, 58 000/mm<sup>3</sup>; partial thromboplastin time, 33.4 seconds; international normalized ratio, 1.28). At endoscopy, the esophageal mucosa was extremely fragile and difficult to aspirate into the ligation device. Three of the six rubber bands placed at the gastro-esophageal junction slipped off, leaving oozing blood. This was treated by injecting 3.5 mL of polidocanol (Aethoxysklerol; Base Pharma, Gordon, NSW, Australia). During withdrawal of the endoscope, several areas with bluish bullous lesions (each <1 cm in diameter) were observed in the upper two-thirds of the esophagus (● Fig. 1). One of these lesions, which showed slight oozing of blood, was injected with 1 mL of polidocanol.

Hematemesis developed 4 hours later, with a drop in the hemoglobin concentration of 0.8 g/dL to 10.2 g/dL. At second-look endoscopy, the submucosal bullae involved up to half of the circumference of the esophagus and more than two-thirds of its length (● Fig. 2a,b). One of these bullae had ruptured and was covered by a clot (● Fig. 2c). The rubber bands were still in place. There was no ongoing bleeding. Within the next 18 hours, the hemoglobin concentration decreased to 7.6 g/dL, and the patient received two thrombocyte concentrates. At follow-up endoscopy after 6 weeks, the mucosa of the upper two-thirds of the esophagus was normal (● Fig. 3). Varices were still present in the lowest third.

Intramural hematoma of the esophagus is a rare entity [1]. It may occur spontaneously; be secondary to a coagulopathy, as in myelofibrosis [2]; or develop after variceal sclerotherapy [3]. In our patient, low platelet counts, abnormal platelet function, sclerosis of the esophageal mucosa, and sclerotherapy may have been contributing factors. In summary, intramural hematoma of the esophagus is a rare complication that can result in severe blood loss. However, the prognosis is good with conservative management [4].

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**Competing interests:** None



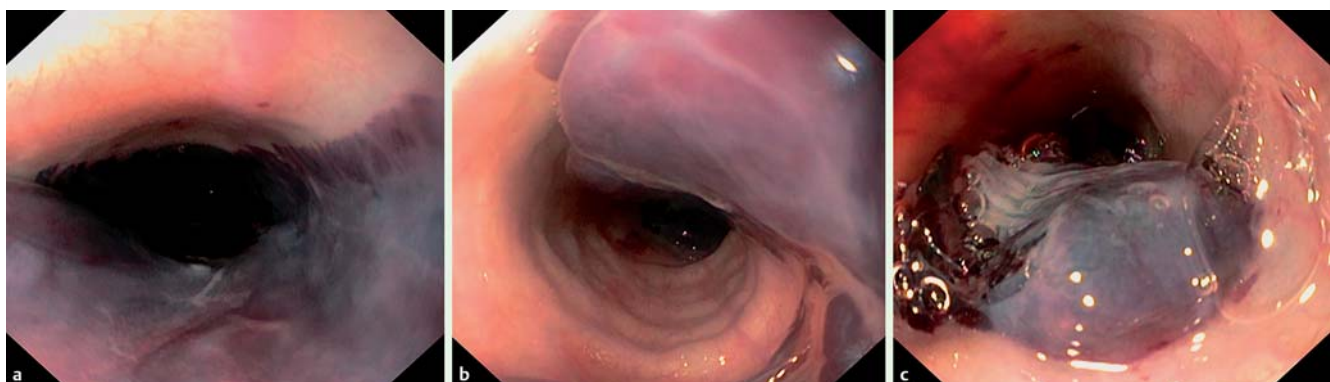
**Fig. 3** Follow-up endoscopy after 6 weeks.

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**Fig. 2** a, b At second-look endoscopy, the bullous lesions have expanded. c A blood clot covers a ruptured bulla (to the left of the bulla).

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