A Rare Case of Gastrointestinal Hemorrhage: Aortoesophageal Fistula Following Repair of Aortic Dissection

A 45-year-old man was admitted due to acute and severe chest pain. Immediate magnetic resonance imaging showed a dissecting aneurysm of the descending aorta, and transesophageal echo cardiography demonstrated the dissecting membrane. The jet between the true and the false lumen, visualized by color flow mapping, proved the presence of an intimal tear (Figure 1). Despite medical treatment, the patient remained highly symptomatic. A prosthetic aortic graft was therefore performed. At day 25 after surgery, the patient unexpectedly developed hematemesis and hypovolemic shock. After hemodynamic stabilization, emergency gastroscopy was performed. Following cautious irrigation and suction, a recess with an adherent clot was discovered on the dorsal wall of the mid-esophagus, about 3 cm in diameter (Figure 2). The lesion was not actively bleeding at the time of endoscopy. As an aortoesophageal fistula was suspected, no attempt was made to remove the clot or to carry out any endoscopic hemostatic therapy. Immediate surgery was considered to be the last resort in this critical situation. Unfortunately, the patient died from exsanguination soon after the gastroscopy. The existence of the aortoesophageal fistula was proved at autopsy (Figure 3). Histologically, the etiology of the aortic dissection was idiopathic mediocriseis (Erheim’s disease). Graft infection was excluded. Fistulas between dissecting aortic aneurysms or prosthetic aortic grafts and the upper gastrointestinal tract are rare causes of acute upper gastrointestinal bleeding (1). Svensson et al. (2) reported seven patients developing aortoesophageal fistulas, all with a lethal outcome, among 832 patients undergoing repair of the descending thoracic aorta. Aortoesophageal fistulas clinically present with mid-thoracic pain, sentinel arterial hemorrhage, and final exsanguination after a variable symptom-free interval (Chiari’s triad). Hematemesis after prosthetic aortic grafting can be caused by an aortic fistula. Once suspected, emergency
gastroscopy is mandatory (1,3). The endoscopic features of aortoesophageal fistula can include intramural hematoma, a pulsating submucosal mass with adherent blood clots, ulcerated maeosa, and even an external compression of the esophagus. Biopsy or any endoscopic intervention is contraindicated in suspected fistulae (3). The first successful operation on an aortoesophageal fistula was reported in 1983 (4). The literature (4,5) shows that prompt surgery offers the only chance of survival, but rarely succeeds. The present case report shows the importance of immediate endoscopic diagnosis of aortoesophageal fistula, but the symptom-free interval may be too short for surgery to be started even on an emergency basis.

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