Acute esophageal necrosis after endovascular abdominal aneurysm repair

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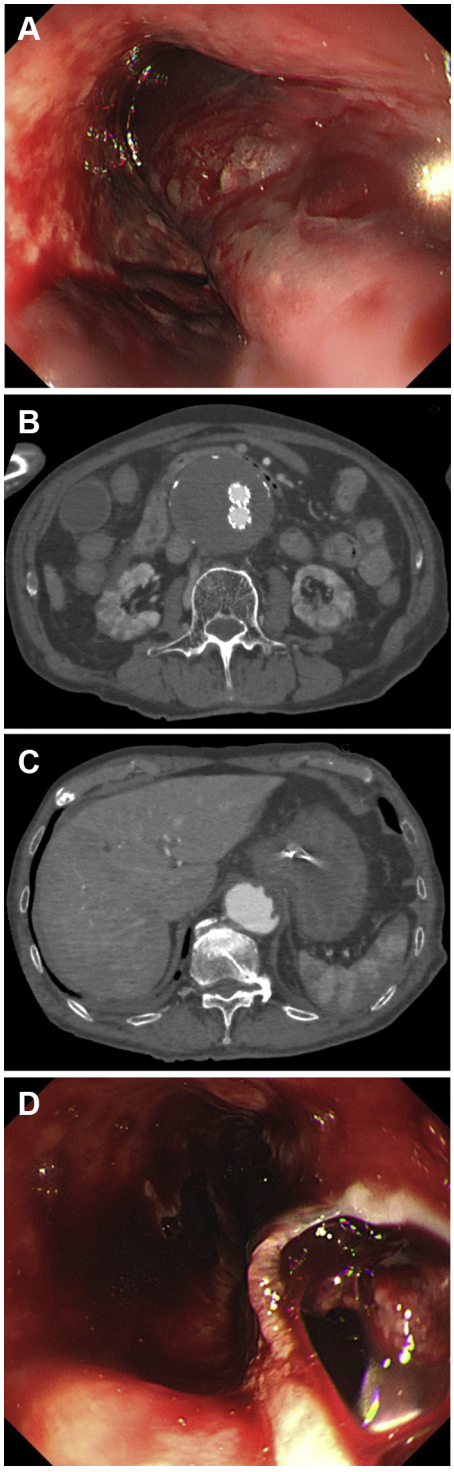
An 84-year-old man was referred to our hospital with an infrarenal abdominal aortic aneurysm (AAA). He had a history of hypertension and cerebral infarction but no diabetes or kidney disease. Computed tomography revealed an AAA that was 70 mm in diameter and diffuse, irregularly shaped thrombi in the descending thoracic aorta. He underwent elective endovascular aortic aneurysm repair. Subsequent thrombectomy with a Fogarty balloon catheter was required because of acute limb ischemia. Fresh thrombus was removed from the anterior tibial artery. Two hours after surgery, he vomited blood, and emergent esophagogastroscopy was performed, which revealed multiple erosions with bleeding, submucosal hematoma, and black discoloration of the esophagus (*A*/Cover). Computed tomography revealed intramural hematoma of the esophagus, multiple embolisms (bilateral kidney and spleen; *B* and *C*), and no endoleak. Acute esophageal necrosis (AEN) was diagnosed and treated conservatively. Follow-up endoscopy after 10 days showed deep ulceration and bleeding of the esophagus (*D*). The endoscopy findings improved, and he started oral intake 5 weeks after the surgery. He was transferred to another hospital 10 weeks after surgery. At discharge, he was able to consume a normal oral diet and was ambulatory.

AEN is also known as a black esophagus or acute necrotizing esophagitis. It is a rare cause of upper gastrointestinal bleeding and is defined endoscopically by a diffuse and circumferential black mucosa.[1,2] The pathophysiology of AEN is multifactorial, including esophageal ischemia, impaired mucosal reparative mechanisms, and a debilitated physical state. The esophagus receives blood flow from multiple arteries; the upper part of the esophagus from the inferior thyroid artery, the part of the esophagus in the thorax from the bronchial arteries, and the lower part from the left gastric artery. In the present patient, his hemodynamics were stable during the perioperative period, and we did not intervene in any of the feeding arteries of the esophagus. Therefore, we speculated that AEN occurred as a part of the multiple embolisms from the shaggy thoracic aorta. To the best of our knowledge, the present case was an extremely rare case of AEN due to multiple embolisms after elective AAA repair.

The patient consented to the use of the related medical history and images for educational purposes.



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Author conflict of interest: none.

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The editors and reviewers of this article have no relevant financial relationships to disclose per the Journal policy that requires reviewers to decline review of any manuscript for which they may have a conflict of interest.

J Vasc Surg Cases Innov Tech 2021;7:597-8
2468-4287

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Submitted May 6, 2021; accepted Jul 10, 2021.