

Black Esophagus: An Unusual Finding During Routine Endoscopy

Black esophagus, or acute esophageal necrosis, is an uncommon condition that has only been reported a few times previously. It is defined as a dark pigmentation of the esophagus associated with histological mucosal necrosis. We report here a case of black esophagus encountered during routine endoscopy [1,2].

A 76-year-old man was admitted with a three-day history of epigastric pain and black stools. There was no history of upper gastrointestinal ulcer, gastroesophageal reflux disease, or ingestion of any caustic substances. The patient had a medical history including hypertension, coronary insufficiency, and arthritis of the left shoulder. Medications he was taking included daily coated aspirin, nifedipine, lisinopril, fluvastatin, and naproxen for the arthritis. On admission, he was hemodynamically stable and afebrile. The physical examination was unremarkable. A digital examination was positive for blood. The laboratory data showed a white blood count of 12 000 without a left shift, hemoglobin 9.7 g/dl, hematocrit 28%, creatinine 1.5 mg/dl, and glucose 145 mg/dl.

The initial therapy consisted of intravenous fluid administration. On the following day, an upper gastrointestinal endoscopic examination revealed black-appearing esophageal mucosa, with ulceration from the upper third of the esophagus to the cardia (Figure 1). In addition, there were three prepyloric ulcers. Histological examination of the esophageal biopsy specimens revealed mucosal inflammation, ulceration, and necrotic debris. Grocott-Gomori methenamine-silver staining was negative for mycotic infection. Immunostaining and viral cultures were negative for cytomegalovirus and herpesvirus. The patient received a transfusion of two units of blood, and omeprazole was administered for six weeks at 20 mg/day. He was discharged on day 8. An upper gastrointestinal endoscopy six weeks later showed normal pink-appearing esophageal mucosa with no evidence of necrosis, exudate, or stricture formation.

A review of the literature shows that 24 cases of acute esophageal necrosis have been described during the last 30 years [3–5]. All of the patients were severely ill. A variety of mechanisms has been proposed to account for the development of this unusual condition, including prolonged hypotension [6], hyperglycemia [3], hypersensitivity to antibiotics [7], underlying malignancy [3], herpetic infection

[4], and an association with gastric volvulus [5]. The case described here is unique because of the absence of any of the above conditions. The patient was admitted to the hospital in a stable condition, reporting black stools during the previous three days, and diffuse necrosis of the esophageal mucosa was diagnosed on his second day in hospital during routine upper gastrointestinal endoscopy. Remarkably, the patient developed black esophagus without any clinical evidence of hypotension or shock.

It would appear that old age, generalized atherosclerosis, and a clinically silent hypotensive episode may have resulted in the acute esophageal necrosis in this case. The case shows that, in spite of its diverse blood supply, the esophagus may be more vulnerable to ischemic injury in the elderly.

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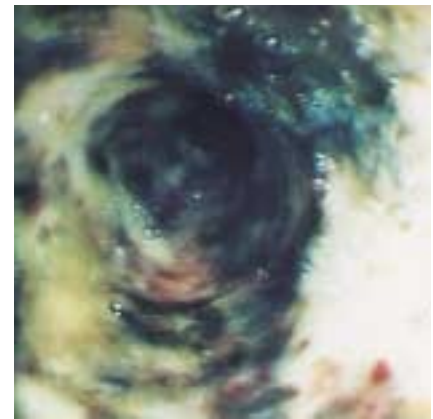


Figure 1 Endoscopic view of the black-appearing esophageal mucosa, with friability and exudates

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