Diagnostic and Interventional Endoscopy

Letter to the Editor

Massive Hematemesis: A Rare Presentation of Tuberculosis in a Girl

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Dear Editor,

Tuberculosis (TB) is a prevalent disease in developing countries such as India. Esophageal involvement and bronchoesophageal fistula (BEF) are reported in 0.14% of the cases as a rare manifestation of TB.1-4 We report a case of massive hematemesis due to BEF caused by complication of pulmonary TB, treated successfully with conservative approach. A 12-year-old girl without any premorbid illnesses (weight 44 kg at 50th centile; height 160 cm at 50th centile) presented to the emergency department with repeated episodes of hematemesis. There was no history of jaundice, abdominal pain, or drug intake. On admission, she exhibited pallor, tachycardia, and dehydration, requiring fluid resuscitation and blood transfusion, with otherwise unremarkable physical examination. Esophagogastroduodenoscopy revealed a 20- mm ulcer in mid-esophagus with mild oozing of blood and air bubbles observed at the ulcer base suggesting communication with the airway. Computed tomography (CT) scan of the thorax showed a defect in anterior wall of esophagus at the level of thoracic vertebra T7 with extravasation of oral contrast into an oblique tract within the right lower lobe bronchus with multiple air foci. There were multiple, conglomerated, paratracheal and mediastinal lymph nodes with central necrosis. Histopathology of the ulcer revealed a granulomatous inflammation, and Gene Xpert tested positive for Mycobacterium tuberculosis. She was managed by application of over-the-scope-clip (OTSC) system (Ovesco Endoscopy, Germany) at the esophageal fistulous opening and nasogastric tube feeding along with 4-drug antituberculosis treatment (ATT). The child was started on oral diet after 72 hours, and closure of fistula was confirmed endoscopically and fluoroscopically (no leakage of contrast) after 4 weeks of ATT. She remained asymptomatic during the 6-month follow-up with normal CT thorax. Variceal bleeding and gastro-duodenal ulcers are common causes of hematemesis in children; however, tuberculous BEF is extremely rare, reported only in few case reports.1,2 It is due to direct extension from an adjacent inflamed, necrotic mediastinal/hilar lymph nodes leading to local abscess formation and rupture into neighboring organ such as esophagus, trachea, or bronchus, resulting into a fistula.1-3 BEF was earlier managed surgically; however, because of advances in endoscopic interventions, a more conservative approach is now advocated [4, 5]. Improving the awareness of tuberculous BEF is important. This needs to be distinguished from other conventional causes of hematemesis such as variceal and peptic ulcer to avoid any delay in diagnosis.

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