Successful surgical management of severe mediastinitis caused by a perforating esophageal foreign body

Dear Editor,

Chicken bone is one of the most frequent foreign bodies (FB) associated with upper esophageal perforation.

A 60 years old Caucasian male, presented to the Emergency Department of our hospital complaining for dysphagia, cough and fever up to 38 ºC, lasting for about 13 days. The patient had no previous medical history, apart from appendectomy 15 days before admission. Two days post operation and discharge the patient already had the aforementioned symptoms. Upper gastrointestinal endoscopy was incomplete because of the presence of phlegmon in the upper esophagus. The remainder of the examination and workup was normal. Computed tomography (CT) of the neck, thorax and abdomen revealed esophageal abscess, causing dilatation of the upper part of the esophagus and subcutaneous emphysema. Reviewing the history, the patient mentioned a chicken meal 22 days ago. Operation took place and a chicken bone was removed from the upper esophagus, with simultaneous drainage of the upper mediastinum. Ten days post operation the patient was discharged. Reviewing the histology report of the appendix, no signs of acute inflammation were confirmed, thus We believe that a same FB perforated the bowel as well.

FB is the second most common etiology of esophageal perforation after iatrogenic manipulation. Suggestive history of sharp bodies ingestion and clinical suspicion are the cornerstones of diagnosis. Symptoms include pain, dysphagia, and rarely hematemesis; pain is the most frequent symptom (>90%)[1]. Clinical signs of esophagus perforation, tenderness and subcutaneous emphysema of the neck. Substernal pain and polypnea are associated with mediastinal extension. Mediastinal crunch (Hamman sign) and crepitations may be heard on chest auscultation. Diagnosis is confirmed by contrast esophagograms and CT-scan Rigid endoscopy may be used.

The most common cause of Mediastinal Infections (MIs) is esophageal perforation. MIs are life-threatening and distinctly rare events, especially when caused by FB perforation. Fever, chest pain and leukocytosis are important, but not specific, clues. MIs must be detected as soon as possible by computed tomography scanning. Early diagnosis reduces the mortality rate significantly[2]. The mainstay of treatment for patients with MIs is surgical drainage and antimicrobial chemotherapy. Percutaneous catheter drainage is less invasive than surgical and controls infections effectively[2,3]. However, some surgeons support that cervical drainage alone is sufficient for patients with cervical phlegmon or mediastinal involvement, limited to a single superior mediastinal space. Other concluded that mediastinum cannot be adequately drained by limited approach and early thoracotomy is needed[2,4].

Clinicians must be aware of the possibility of MIs in patients with esophageal abscess associated with persistent fever. Emergency cervical and mediastinal abscess drainage and irrigation via thoracic approach is the best approach.

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