Spontaneous esophageal perforation in eosinophilic esophagitis in children

Fig. 1 a Chest computed tomography scan showing an upper third retroesophageal perforation, with a periesophageal fluid collection (20 × 10 mm). b Esophageal endoscopy. c Biopsy showing intraepithelial eosinophil aggregates.

A 9-year-old girl with a history of asthma, intermittent solid food dysphagia and blockage was admitted because of chest pain, pyrosis, and fever (38.3°C). The only medication she was on at the time of our evaluation was the inhaler Salbutamol-sulfate, which she used as needed. Symptoms started a few hours after a food blockage episode. Physical examination was normal, except for tachycardia (135 bpm). Laboratory results showed: leukocytosis (17 300/mm³), 11.59×10^9 neutrophils, a high C-reactive protein (180 mg/l), and erythrocyte sedimentation rate of 74 mm/h.

Chest radiograph was normal. Chest computed tomography scan (● Fig. 1a) showed a retroesophageal perforation, with periesophageal fluid collection. Initial treatment consisted of fasting, intravenous antibiotics (ceftriaxone 1.5 g/d, metronidazole 300 mg t.i.d, gentamicin 90 mg/d), and proton pump inhibitor (30 mg/d), with good evolution. Upper endoscopy (● Fig. 1b) 2 months later showed an upper esophageal resistance to the tube passage without stenosis, and normal mucosa. Biopsies demonstrated very many intraepithelial eosinophil aggregates > 20 eos/HPF (● Fig. 1c).

Eosinophilic esophagitis is characterized by esophageal and/or upper gastrointestinal tract symptoms in association with an esophageal mucosal biopsy containing ≥ 15 intraepithelial eos/HPF in one or more biopsy specimen, without pathologic gastroesophageal reflux disease (GERD) [1]. Eosinophilic esophagitis is a

rare chronic inflammatory disease, with a varied clinical and endoscopic spectrum. Some age-related differences were noted between symptoms in children and adults. In children, feeding refusal or intolerance, GERD-like symptoms, emesis, abdominal pain, dysphagia, food impaction, chest pain, and diarrhea have been described [1]. In adults, intermittent dysphagia and food impaction are more common [1]. Transmural inflammation has been reported in eosinophilic esophagitis. It significantly increases the risk of perforation. Mucosal laceration and transmural perforation have been reported after endoscopy or dilation in eosinophilic esophagitis [2, 3].

Spontaneous esophageal perforation was recently reported in three adults, associated with eosinophilic esophagitis [2–4]. Until now, no reports of this unusual association and presentation have been reported in children, extending the clinical spectrum of eosinophilic esophagitis in this population.

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