



Esophagectomy for eosinophilic esophagitis: how to avoid it

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Summary Patients with eosinophilic esophagitis (EoE) can currently benefit from an evidence-based medical and dietary treatment according to knowledge accumulated from observational studies and randomized controlled trials, the results of which were summarized in several systematic reviews and meta-analyses. Surgery is relegated to solving some uncommon complications of EoE and has been exclusively applied in a handful of cases of esophageal perforation. This letter to the editor criticizes the only case of elective esophagectomy carried out in a 27-year-old male with EoE and longstanding dysphagia, which was unresponsive to obstinate endoscopy-based treatment. Despite medical and dietary treatment, strategies in EoE must still be improved and basing the clinical management of sufferers on the application of therapies with demonstrated effectiveness instead of empirical strategies is highly desirable.

Keywords Eosinophilic esophagitis · Esophageal perforation · Esophagectomy · Esophageal surgery · Food allergy

To the editor

Eosinophilic esophagitis (EoE) is a chronic esophageal disorder characterized clinically by symptoms of esophageal dysfunction and histologically by an eosinophil-predominant inflammation restricted to the esophagus [1]. The frequency of the disease has increased dramatically since its initial descriptions to become the main cause of dysphagia in young

patients [2]. The accumulating experience on EoE has favored plenty of observational studies and randomized controlled trials (RCTs), the results of which have been summarized in several systematic reviews and meta-analyses. Thus, an evidence-based health care approach can be currently offered to patients with EoE, despite the fact that some therapies are still unable of combining effectiveness with patients' convenience [3]. In this sense, it can be clearly stated that proton pump inhibitors (PPIs) at double doses are effective in inducing disease remission (both clinical and histological) in half of children and adults [4], and allow a sustained maintenance of remission with standard doses in the vast majority of cases [5]. The identification of offending foods triggering and maintaining EoE is achievable in up to three quarters of patients [6], and dietary treatment by removing only one or two foods from the patients' diets achieves and maintains long-term disease remission [7]. Four meta-analyses have demonstrated that topical steroids are highly effective in achieving EoE remission. The superiority of viscous formulations of budesonide over swallowing the content of an inhaler device was demonstrated in a RCT [8] and reproduced in further research.

The characteristics of the esophagus as a peristaltic organ, upright and with a distal outlet sphincter, which is subjected to continuous clearance of its content, constitutes a challenge for topical EoE treatment: drugs intended to reach and remain in this organ must be specifically formulated. In this regard, a recent RCT assayed different doses of budesonide specifically designed to be topically released in the esophagus. After 2 weeks of treatment, histopathological remission was reached in 100 % of the patients, regardless of the dose used [9].

The progressive development of esophageal strictures over the course of EoE determines that many

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patients must undergo to esophageal dilation, a mechanical procedure that enlarges the esophageal caliber and improves dysphagia, but lacks an anti-inflammatory effect. Most authors believe that esophageal dilation should always be associated with an effective drug or dietary treatment. As strictures tend to recur over time, esophageal dilation should not be applied as the sole therapy for EoE, especially because both dietary and topical steroid treatment are effective in reversing esophageal remodeling and avoiding esophageal strictures [10, 11].

In the abovementioned scenario, medical treatment of EoE based on drugs and dietary modifications (combined with dilations only in the case of esophageal strictures) currently allows adequate management of countless EoE patients throughout the world, as understood from the growing literature on this disease. Surgery is relegated to solving some of the uncommon complications that appear in EoE, and has been applied exclusively in a handful of cases to solve esophageal perforations, produced both after patients' efforts to dislodge impacted food or after endoscopic procedures [12]. However, the literature shows that most perforations are satisfactorily managed conservatively [13].

Irino et al. report on a 27-year-old male with EoE and longstanding dysphagia, unresponsive to calcium channel blockers, tricyclic antidepressants, or PPIs (unspecified dose), as well as to topically administered budesonide inhalers [14]. After balloon dilation-induced esophageal perforation, he was treated with esophageal stenting. Dilations were repeated every 3 weeks during the following 1.5 years and nine esophageal stents were placed and withdrawn. Finally, the patient underwent total elective esophagectomy; this constituting the only case reported in the EoE literature out of the more than 1800 documents on this topic currently indexed in PubMed. According to the authors, esophagectomy could be offered to EoE patients with a long history of symptoms and disease refractory to all of the standard treatments, who persistently present a poor quality of life or malnutrition. Surprisingly, none of the available treatment options with proven efficacy in high-quality studies were applied to avoid the dramatic result of this patient, as deduced from the text. Applying the best available evidence to clinical practice would have avoided an obstinate endoscopy-based treatment that proved expensive, risky, and, finally, ineffective.

Despite medical and dietary treatment strategies, management of EoE must be still improved. Basing the clinical management of patients on application of the best available evidence is highly desirable, thus avoiding empiric strategies that may compromise long-term disease outcomes.

Conflict of interest The author(s) declare that they have no competing interests.

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