CASE REPORT

Acute exacerbation of dysphagia due to foreign body impaction in an oesophageal stricture due to eosinophilic esophagitis

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SUMMARY

A 43-year woman with a 4-year history of swallowing difficulty for solids presented with absolute dysphagia, which was only slightly relieved by intravenous relaxant given in the emergency department. Barium swallow showed a smooth polypoid filling defect in the mid-oesophagus, with a hold-up at this level. Gastroscopy showed a narrowed ringed oesophagus with an impacted foreign body. This was extracted with a basket, with relief of the dysphagia. Oesophageal biopsies confirmed the diagnosis of eosinophilic esophagitis.

BACKGROUND

Dysphagia is a common clinical problem which is often associated with significant impairment of quality of life and which requires prompt evaluation by endoscopy and/or barium swallow. In older individuals oesophagogastric cancer or peptic stricture may be the cause while younger patients with dysphagia may have an oesophageal motility disorder or eosinophilic esophagitis (EoE). The latter is a recently described condition which some primary care physicians may still be unaware of.¹

We wrote up this case to highlight EoE as a cause of dysphagia in young individuals and food impaction on a background of an oesophageal stricture as a cause of acute absolute dysphagia.

CASE PRESENTATION

A 43-year woman with a 4-year history of swallowing difficulty for solids, presented with acute dysphagia and inability even to swallow saliva. The exacerbation occurred suddenly following a breakfast of cereals and fruit. She attended the emergency department where an intravenous relaxant and sedative together with a fizzy drink helped. However, she continued to have odynophagia and dysphagia for solids. There is no significant past history nor history of atopic problems.

INVESTIGATIONS

Barium swallow showed a smooth polypoid filling defect in the mid-oesophagus, approximately 3 cm in diameter. There was a hold-up at this level but contrast flowed around the lesion (figure 1, long arrow). Multiple oesophageal rings (short arrows) consistent with EoE were also visible. At this stage a benign oesophageal tumour was thought to be a possibility.

Gastroscopy showed a ringed oesophagus typical of EoE. The mid-oesophagus was narrowed, not

allowing passage of the endoscope. A foreign body, a whole almond, was impacted at this level and was extracted with a basket (figure 2). Oesophageal biopsies showed eosinophilic infiltration with occasional eosinophilic micro-abscesses, consistent with EoE (figure 3).

DIFFERENTIAL DIAGNOSIS

Chronic dysphagia in a young individual may be due to EoE or an oesophageal motility disorder. Acute exacerbation with absolute dysphagia may be due to an impacted foreign body in an oesophageal stricture.

TREATMENT

Endoscopic removal or dis-impaction is the treatment of choice for food bolus obstruction.

Figure 1 Barium Swallow showing a constant filling defect in the mid-oesophagus (long arrow). Multiple rings in the upper oesophagus (short arrows) were consistent with eosinophilic esophagitis.

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Figure 2 Whole almond retrieved at gastroscopy.

Topical steroids, usually in an inhalable formulation but dry swallowed, is the mainstay of treatment for EoE.^{2 3} Proton pump inhibitors are beneficial in a subgroup of patients,⁴ although the original description of EoE excluded proton pump inhibitor responsive disease.⁵ Dietary exclusion therapy, which was used initially in infants, has been found recently also to be feasible and effective in adult patients.⁶ Endoscopic dilation is a recognised treatment in stenosing EoE.⁷ It may be hazardous to dilate the oesophageal stricture in this particular patient as the length is uncertain and dilation in EoE strictures is associated with more complications compared to dilation of peptic strictures.⁷

OUTCOME AND FOLLOW-UP

The patient's symptoms resolved dramatically after extraction of the foreign body. She was started on proton pump inhibitor therapy and will be considered for swallowed inhalable steroids and possibly dietary exclusion therapy.

DISCUSSION

EoE is a clinicopathological disorder of the oesophagus characterised in adults by intermittent dysphagia, food bolus obstruction and chest pain, in association with oesophageal mucosal biopsies containing at least 15 intraepithelial eosinophils per high-power field.¹ EoE is more common in men; often in

Figure 3 The oesophageal squamous epithelium is oedematous and is infiltrated by numerous eosinophils with formation of an occasional eosinophilic microabscess.

individuals with a personal or family history of other allergic disorders such as asthma, allergic rhinitis, eczema or hay fever.

There has been a dramatic rise in the frequency of reports and case series of this condition in the past two decades. While this may in part be due to a genuine increase in incidence of the disease, increased recognition through greater awareness is likely to be a contributory factor.

Patients with EoE are often initially misdiagnosed as having gastro-oesophageal reflux disease. In a recent British series of 37 patients with EoE, the mean duration of symptoms before diagnosis was 4 years (range 4 months–30 years). The most common reasons for delayed diagnosis include delay in investigation of dysphagia and incorrect clinical, endoscopic or histological diagnosis as gastro-oesophageal disease.⁸

Swallowed topical corticosteroids are effective in inducing and maintaining remission in patients with EoE.^{2 3} The original definition of EoE required that the patients be unresponsive to proton pump inhibitor therapy, to differentiate EoE from gastro-oesophageal reflux disease, which can be associated with a lower level of oesophageal eosinophil infiltration. However, it was subsequently shown that 50% of patients with typical presentation of EoE and oesophageal eosinophilic infiltration respond to proton pump inhibitors.⁴ To date it remains uncertain if proton pump inhibitors responsive oesophageal eosinophilia represents a subgroup of EoE, a variant of gastro-oesophageal reflux disease, or a separate entity distinct from the other two. Food allergens are thought to be a major antigenic trigger in EoE and dietary management with an elemental diet has long been used for paediatric patients with EoE. Recently, dietary treatment with empirical elimination of six common food items that is, milk, wheat, egg, soy, nuts and fish, and subsequent reintroduction of some of these foods, has also been shown to be effective and acceptable in adult patients with EoE.⁵

A follow-up study for up to 11 years of patients with EoE showed that symptoms persisted but the disease was not associated with any malignant potential.⁹

Learning points

- ▶ Dysphagia and food bolus obstruction in young adults may be due to eosinophilic esophagitis, especially in atopic individuals.
- ▶ Acute absolute dysphagia may be due to foreign body impaction on a background of an oesophageal stricture.
- ▶ Eosinophilic esophagitis should be considered in young individuals with symptoms of gastro-oesophageal reflux disease seemingly refractory to treatment.

Contributors J-YK saw the patient, performed the endoscopy and helped draft the manuscript. AH-YK conducted the literature search and helped draft the manuscript. ZA performed the barium study. HC performed the histological studies. All authors approved the final manuscript.

Competing interests None.

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