Oesophageal Candidiasis in an Immunocompetent Child

Abstract:
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Abstract
We are reporting a rare case of oesophageal candidiasis in an immunocompetent child secondary to prolonged use of inhaled steroids.

Introduction
Infections of the oesophagus are rare and seen mostly in immunocompromised children. Common organisms include Herpes simplex virus, cytomegalovirus as well as Candida. Diagnosis of oesophageal Candidiasis involves identification of Candida species in oesophageal brushing or oesophageal biopsy. Immunodeficiency may result not only from use of chemotherapy, chronic illness or congenital immunodeficiency, but also from prolonged use of steroids, even inhaled.

Case Report
A 9 years old girl was admitted with six weeks history of epigastric pain. This was associated with odynophagia (painful swallowing) and dysphagia (difficulty in swallowing). She described her swallowing as food sticking in her oesophagus. She had abdominal pain for two years, vague in nature. There was no associated vomiting, diarrhea or abdominal distension. Bowel habits were normal. She was on follow up for short stature which was thought to be familial. She was admitted twice before one year for the same complaint. In the first occasion, she was diagnosed with chronic constipation, while acute appendicitis was suspected in the second, requiring appendicectomy. Appendix was found to be normal on histology. She also had adenotonsillitis five years in addition to congenital ptosis; repaired surgically. The patient was on inhaled Beclometasone 200 micrograms twice a day in addition to Montelukast for four years for bronchial asthma.

Clinical examinations revealed no evidence of clubbing, vital signs were normal. There was no oral thrush. Chest, cardiovascular and abdominal exam was essentially normal. Her weight was 18.8 kg (<0.4th centile) and her height was 124.2 cm (2-9th centile). Blood tests including full blood count, renal and liver function were all normal at this stage, as well as inflammatory markers. A diagnosis of eosinophilic eosphagitis (E.E) was suspected because of the history of asthma and the dysphagia, so an upper G.I Endoscopy was performed. This showed linear Candida plaques and mucosal hyperemia & erythema mainly in the middle part of the oesophagus. No ulcers were found.

Biopsies confirmed presence of chronic inflammation as well as Candida hyphae with mild eosinophilia not sufficient to diagnose E.E. Treatment with Fluconazole, Nystatin and Daktarin was prescribed for six week. Investigations including immunology workup, HIV 1 & 2 screening and sweat test were conducted, all were normal. Significant improvement in swallowing was noticed post treatment; although the pain persists. She represented with recurrent abdominal pain. A repeat upper GI endoscopy was performed. The oesophageal mucosa was normal. On follow up; her weight improved to 20.3 kg meaning 1.5 kg weight gain in 6 weeks. She did not complain of dysphagia but continued to complain of abdominal pain.

Discussion
Infections of the Oesophagus are rare and most commonly seen in immunocompromised individuals. Candida species are common salonorganisms of the gastrointestinal tract. The development of candidemia, however, strongly implies immunodeficiency, since it often occurs in immunocompromised patients. Oesophageal candidiasis (OC) is well reported in immunocompromised patients especially those with HIV infection and malignancies. Long-term use of high-dose corticosteroids predisposes the patient to mucosal infection with Candida.

Hasosah et al, from Saudia Arabia reported one case of OC in an 18 month old child. They described a girl with no congenital or acquired immunodeficiency that had OC superimposed on reflux esophagitis. She presented with haematemesis and melena. The girl was on inhaled corticosteroids for eight months. She responded very well to antifungal treatment. This is one of the few case reports on OC in immunocompetent child. Our case is the first in Caucasians and in this age group. We are attributing the cause of OC in this patient to prolonged use of inhaled steroids. This case illustrates that OC is a potential complication of inhaled steroids use even in the absence of oral candidiasis which adds another reason for ensuring that patients with asthma are using inhalers correctly.

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References

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