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Recurrent Dysphagia: Think about Eosinophilic Esophagitis

Nacir Oussama[1*], Chait Yassine[1], Ait Errami Adil[1], Samlani Zouhour[1], Krati Khadija[1], Oubaha Sofia[2]

[1]Department of Hepato-Gastro-Enterology, Arrazi Hospital, Mohammed VI University Hospital Center, Marrakech, Morocco
[2]Department of Physiology, Faculty of Medicine, Cadi Ayyad University, Marrakech, Morocco

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***Corresponding author:** Nacir Oussama
Department of Hepato-Gastro-Enterology, Arrazi Hospital, Mohammed VI University Hospital Center, Marrakech, Morocco

Abstract **Case Report**

Introduction: Eosinophilic esophagitis is a chronic inflammatory pathology, poorly understood, characterized by isolated dense infiltration of the esophageal mucosa by eosinophils, associated with upper digestive symptoms, caused by allergens that can be food or aeroallergens. ***Case observation*:** This is a 35-year-old patient with a history of recurrent episodes of allergic rhinitis who had repeated and paroxysmal episodes of high dysphagia for two years, occurring after food intake and predominating on solids. The clinical examination was normal, the standard biological assessment revealed Hb: 14.1 g/dl GB: 12,000 ele/mm3 with hypereosinophilia at PNE: 540 ele/mm3 and PLQ: 250,000 ele/mm3 renal function as well that the blood ionogram were without abnormalities. Esophageal endoscopy found a foreign food body upstream of a narrowed aspect of the esophageal lumen of the middle third of the esophagus with erythematous and congestive esophageal mucosa. An extraction of food residues was carried out with additional balance sheet. A cervico-thoracic scan showed a ringed and isolated arrangement of the middle esophagus. Esophageal manometry did not identify motor disorders. Staged biopsies of the esophagus showed eosinophilic polymorphonuclear exocytosis at a rate of 30 intraepithelial eosinophilic polymorphonuclear cells per field at high magnification. The blood dosage of Total IgE returned slightly increased to 250 kU/L. the diagnosis of eosinophilic esophagitis was retained. ***Discussion*:** Eosinophilic esophagitis considered a rare disease, the symptoms vary with age, mainly dysphagia to solids (70%) and symptoms suggestive of gastroesophageal reflux (40%), it may be associated with manifestations atopic. The first examination requested must be a gastroscopy with biopsies, it is therefore essential and must be accompanied, in all cases, by biopsies of the esophagus. There are characteristic, but not pathognomonic, images of eosinophilic esophagitis, namely strictures, appearance of circular rings, reduction in the caliber of the esophagus or non-specific whitish spots. The treatment consists in the eviction of allergens when they are identified associated with topical corticosteroid therapy. The systemic way by predsinone constitutes an alternative in the event of failure or severe form. In corticosteroid-resistant forms: these are leukotriene antagonist (montelukast), immunosuppressant (azathioprine) and biotherapy (mepolizumab). ***Conclusion*:** Eosinophilic esophagitis is a recently recognized entity for which interest is growing. It is the leading cause of dysphagia and food impaction in young men. The diagnosis is histological. Corticosteroid therapy is the reference treatment. Complications are rare, but recurrences are common.

Keywords: Eosinophilic esophagitis – dysphagia – endoscopy.

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INTRODUCTION

Eosinophilic esophagitis is a chronic inflammatory condition characterized by isolated dense infiltration of the esophageal mucosa by eosinophils, associated with upper gastrointestinal symptoms, apart from any other cause [1, 2]. The pathogenesis is still poorly understood, but it is an allergic type disease, the allergens being either food or aeroallergens. It is the immune response mediated by Th2 lymphocytes that seems responsible for this pathology, with the increase in pro-inflammatory mediators (interleukin 4, 5, and 13) recruiting eosinophils [3].

OBSERVATION

A 35-year-old man with a history of recurrent episodes of allergic rhinitis presented with iterative and paroxysmal episodes of high dysphagia for two years. Dysphagia occurred after food intake and predominated on solids. Clinical examination and standard biological assessment were normal. Esophageal endoscopy found a foreign food body upstream of a narrowed aspect of

the esophageal lumen of the middle third of the esophagus. The body of the esophagus had a piled-up appearance with no other abnormality. A cervicothoracic CT scan with barium ingestion showed a ringed and isolated arrangement of the middle esophagus. Esophageal manometry did not identify motor disorders.

The patient was then lost to sight before returning to the emergency room for worsening dysphagia. Endoscopy revealed an impaction of esophageal food foreign body, after extraction of food residues at the level in the middle third, we highlighted an erythematous and congestive esophageal mucosa. The gastroduodenal examination was normal. Staged biopsies of the esophagus showed an infiltrate of more than 70 polymorphonuclear intraepithelial eosinophils per field at high magnification (×400) which supported the diagnosis of eosinophilic esophagitis.

Topical corticosteroid therapy with budesonide (200 g, two puffs per day) was started for an initial period of six weeks. The patient remained asymptomatic after three months of follow-up. The allergy investigation did not identify any significant anomaly.

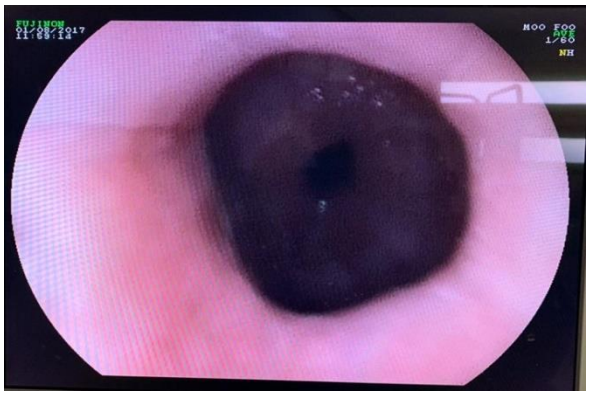

Figure 1: Facial malar rash

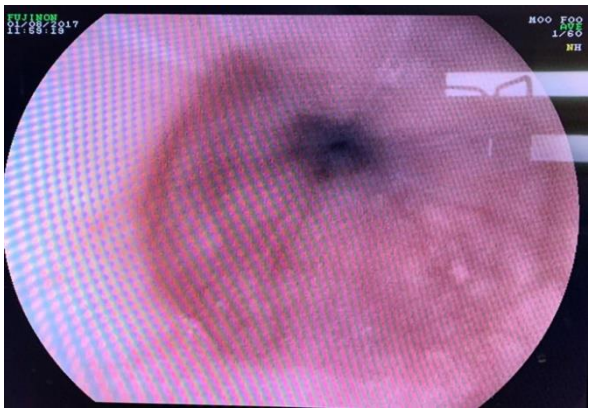

Figure 2: Finger discoid lesions

DISCUSSION

Long considered a rare disease, eosinophilic esophagitis is experiencing renewed interest due to an increase in its prevalence in industrialized countries, from 0.1% in 2001 to 1.9% in 2005 in the United States [4]. Adult eosinophilic esophagitis can occur at any age and in any ethnic group, but is most prevalent in 30-40 year old Caucasian males [5]. The male/female ratio is 3 to 1. Atopic or allergic conditions are frequently found, as well as a genetic predisposition [6].

There is no increase in neoplastic risk or impact on life expectancy, despite an impact on quality of life [7]. Symptoms of eosinophilic esophagitis vary greatly with age. In small children there is difficulty eating and gaining weight. The older child complains of abdominal pain and vomiting, while the adolescent, like the adult, complains mainly of dysphagia to solids (70%) and symptoms suggestive of gastroesophageal reflux (40%) [8].

As in our patient. It is often accompanied by episodes of food impaction. The other signs are represented by hyper sialorrhea, vomiting, abdominal or chest pain and heartburn. The delay between the onset of symptoms and diagnosis is long [9, 10].

In the majority of cases, it is associated with atopic manifestations (asthma, rhinoconjunctivitis, eczema), another allergic pathology or food allergies. A family history of allergy is present in more than 40% of patients[11]. Laboratory tests are generally normal in patients with eosinophilic esophagitis. However, some studies show hypereosinophilia greater than 300–350/mm3, which can affect up to 40–50% of patients. In this case, it is necessary to take into account the patient's age, and the possible presence of concomitant allergies (seasonal, airborne allergens) This slight elevation of eosinophils normalizes under effective treatment [12, 13].

The first examination requested must be a gastroscopy with biopsies, because the barium swallow does not make it possible to establish the diagnosis. Gastroscopy is therefore essential and must be accompanied, in all cases, by biopsies of the esophagus, even if the endoscopic appearance is normal (Figure 3) [14].

In eosinophilic esophagitis, endoscopy is normal in about 10% of cases [14]. There are characteristic, but not pathognomonic, pictures of eosinophilic esophagitis. The esophagus may present with strictures, circular rings, reduced caliber of the esophagus or non-specific whitish spots not suggestive of candidiasis. Finally, there may be some mucosal granularity or longitudinal striations, but the mucosa may also be completely normal. Biopsies should be taken from the lower and upper esophagus. The pathologist will make the diagnosis by highlighting a significant infiltration by eosinophils throughout the esophagus (greater than 15 per field, at x 400 magnification) [15].

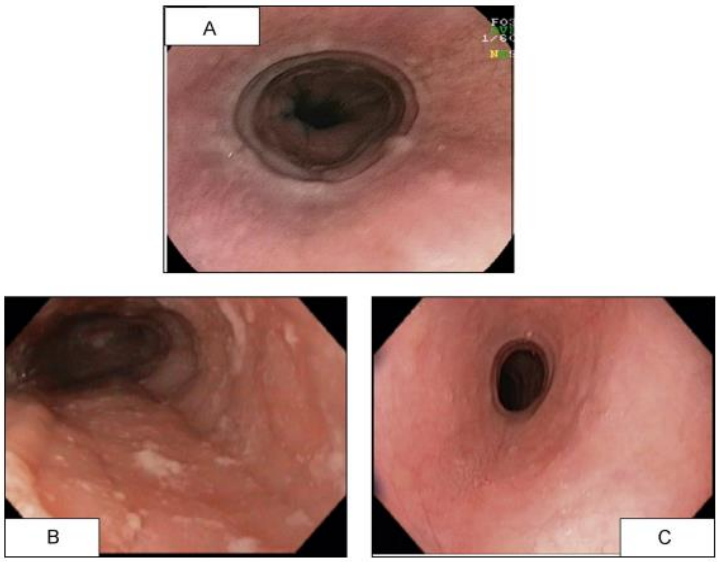

Figure A.B.C: Endoscopic aspects suggestive of eosinophilic esophagitis A. Whitish deposits with a striated appearance. B. Donut appearance. C. Whitish appearance of the gastroesophageal junction [16]

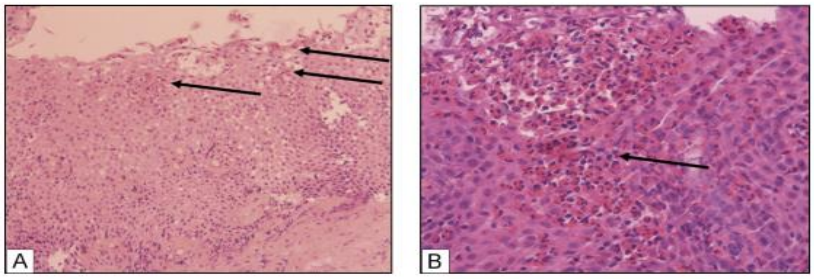

Figure 2: Histological aspects suggestive of eosinophilic esophagitis. HES A. Multiple scattered eosinophils in the superficial layers of the esophageal epithelium, HES 100. B. Microabscess of eosinophils on the surface of the esophageal epithelium, HES 400 [17]

It is sometimes difficult to tell the difference between eosinophilic esophagitis and true gastroesophageal reflux disease. In most studies, the distinction is based on clinical and histological appearance. However, some forms of esophageal eosinophilia respond to proton pump inhibitor therapy and are therefore no longer considered eosinophilic esophagitis [18].

Table 1: Differences between eosinophilic esophagitis and reflux esophagitis [19]

Différences entre œsophagite éosinophilique et œsophagite par reflux

	Œsophagite éosinophilique	Œsophagite par reflux
Fréquence	Rare	Fréquent
Pathogénie	Immuno	Mécanique
Terrain	Homme	H = F
Âge	Jeune	Plus âgé
Dysphagie	+++	+
Pyrosis	+	+++
Endoscopie	Variable	Ulcérations
Biopsies	Étagées	Inutile
Traitements	Corticoïdes	Inhibiteurs de la pompe à protons (IPP)

The treatment consists in the eviction of the allergens when they are identified. It combines topical corticosteroid therapy with budosenide (2 mg/day) or fluticasone (500 to 1000 mg/day) for six to eight weeks [20, 21]. Systemic corticosteroid therapy with predsinone is an alternative in case of failure or severe form. The dosage is 1 to 2 mg/kg per day for eight weeks then a gradual reduction over six weeks. Other

molecules are used in severe or corticosteroid-resistant forms: these are leukotriene antagonist (montelukast), immunosuppressant (azathioprine) and biotherapy (mepolizumab) [22].

CONCLUSION

Eosinophilic esophagitis is a recently recognized entity for which interest is growing. It is the leading cause of dysphagia and food impaction in young men. The anatomoclinical forms are diverse and varied. It is important for gastroenterologists to think about this when faced with any unexplained upper digestive symptomatology, in particular dysphagia. Performing staged biopsies, in healthy and injured areas, is of capital interest in the diagnosis of eosinophilic esophagitis. Corticosteroid therapy is the reference treatment. Complications are rare, but recurrences are common. Regular endoscopic monitoring is not essential.

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