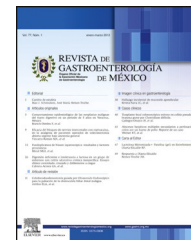




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CLINICAL IMAGE IN GASTROENTEROLOGY

“Jackhammer esophagus” and eosinophilic esophagitis[☆]



«Esófago en martillo neumático» y esofagitis eosinofílica

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A 62-year-old man was referred to our unit due to 12-month progressive dysphagia and severe chest pain episodes. Previously, he took esomeprazole 40mg b.i.d. for 8 weeks, but symptoms did not improve. An upper gastrointestinal endoscopy was performed showing “trachealization” and multiple whitish plaques in the esophageal mucosa (fig. 1). Multiple esophageal biopsies were taken and eosinophilic esophagitis (EoE) diagnosis was made (fig. 2). With the suspicion of combined esophageal dysmotility, high-resolution impedance manometry (HRIM) was performed. HRIM reported at least 2 swallows with a distal contractile integral (DCI) > 15,000 mmHg/s/cm in 10 wet swallows. In addition, during multiple rapid wet swallows (6 water swallows of 2-5 ml in an interval of less than 4 s) the DCI exceeded 15,000 mmHg/s/cm, revealing the typical image for “jackhammer esophagus” (fig. 3). A treatment with swallowed corticoids (fluticasone 500µg b.i.d.) was started and at 6 weeks of

treatment the patient showed symptom improvement of 80%.

The inflammatory process associated with EoE leads to fibrosis and structural changes within the esophagus that cause esophageal dysfunction.¹ To date, only a few series or case reports have described esophageal dysmotility in EoE and abnormalities range from failed peristalsis to pan-esophageal pressurization and hypercontractile esophagus (jackhammer esophagus).^{2–4} In a large and unique study regarding esophageal hypercontractility disorders using high resolution manometry (HRM), Roman S et al.⁵ found that eosinophilic esophagitis may co-exist in 7% of the cases (3/41). We recommend that in the clinical context of EoE with severe chest pain suggestive of esophageal dysmotility, esophageal hypercontractility should be considered. However, the pathophysiologic mechanisms that explain the relationship between Jackhammer esophagus and EoE are not yet clearly understood.

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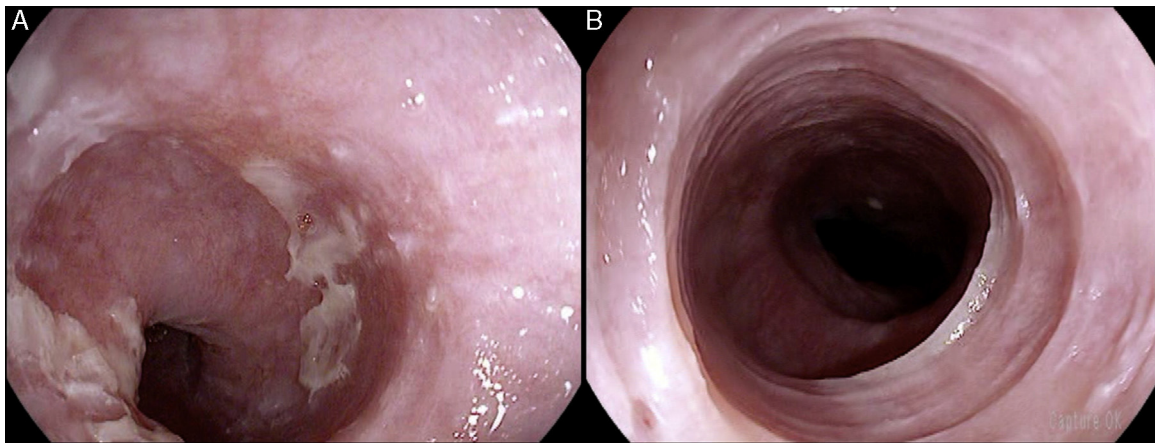


Figure 1 Endoscopic findings of eosinophilic esophagitis. A) Several white plaques or exudates were found at the mid and distal esophageal mucosa. B) Esophageal rings and narrow-caliber esophagus (feline esophagus or esophageal trachealization).

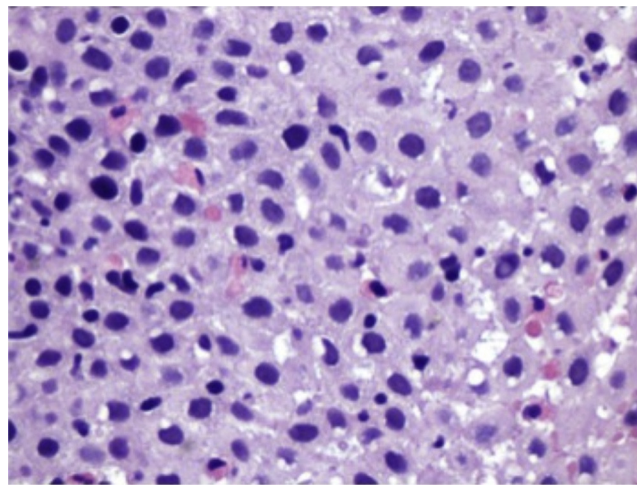


Figure 2 Hematoxylin and eosin stain showing > 15 eosinophils per high power field infiltrating the esophageal mucosa.

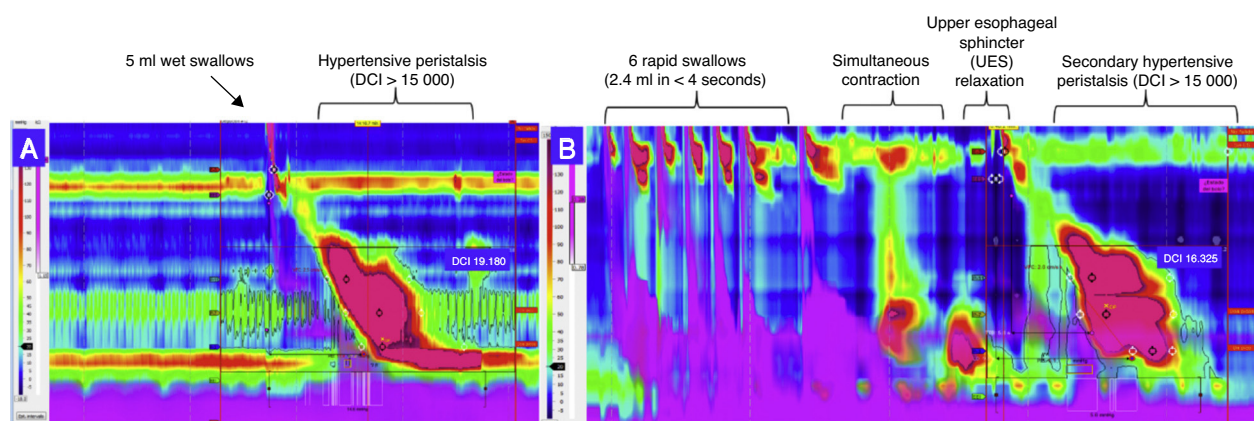


Figure 3 Esophageal pressure topography (EPT) obtained with high resolution impedance manometry. A) The distal contractile integral after a 5 ml water swallow was 19,180 mmHg/s/cm. B) EPT plot after six 2-5 ml water swallows in an interval of < 4 s first showing a spontaneous esophageal contraction followed by upper esophageal sphincter relaxation that induced a secondary hypertensive esophageal contraction greater than 15,000 mmHg/s/cm.

Ethical responsibilities

Protection of persons and animals. The authors declare that the procedures followed conformed to the ethical standards of the responsible committee on human experimentation and were in accordance with the World Medical Association and the Declaration of Helsinki.

Data confidentiality. The authors declare that they have followed the protocols of their work center in relation to the publication of patient data.

Right to privacy and informed consent. The authors have obtained the informed consent of the patients and/or subjects referred to in the article. This document is in the possession of the corresponding author.

Financial disclosure

No financial support was received in relation to this study.

Conflict of interest

José María Remes-Troche is a member of the Advisory Board of Takeda Pharmaceuticals, Alfa-Wassermann, Almirall, and

Janssen. He is also a Speaker for Nycomed-Takeda, Advance Medical, Endomedica, Astra-Zeneca, and Bristol-Myers-Squibb. Mercedes Amieva-Balmori and Ana Cano-Contreras have no conflict of interest.

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