An unsuspected cause of esophagitis and esophageal stenosis – Looking beyond endoscopy findings

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Case presentation

An 89-year-old woman was admitted to the ER with 1-week onset of odynophagia, vomiting and alimentary intolerance. She had medical history of hypertension, dyslipidemia and anemia, usually taking furosemide, perindopril, simvastatin and ferrous sulfate/folic-acid.

Esophagogastroduodenoscopy (EGD) identified food impaction immediately distal to the upper esophageal sphincter (UES), which was easily mobilized to the stomach. In a second visualization a circumferential ulceration of the upper esophagus was observed (Figure 1a-b). The patient was discharged medicated with protonpomp inhibitor twice daily and sucralfate. Soft diet was recommended.

One-month later due to clinical worsening with progressive dysphagia, EGD was repeated. A concentric ulcerated and friable stenosis was observed in the upper esophagus not allowing scope progression (Figure 1c-d). Biopsies were taken and revealed esophageal mucosa covered by stratified squamous epithelium with reactive alterations and presence of fibrin-leukocyte exudate and



Figure 1. — [a;b] In the proximal esophagus from the 15-18 cm of the incisors, circumferential ulceration, covered by exudate. [c;d] Concentric stenosis, ulcerated and friable, not allowing scope progression at 15cm.



Figure 2.—*Perls* histochemical technique (400x magnification), revealing severe acute ulcerated esophagitis, with iron deposits.

granulation tissue. Additionally, through Perls histochemical technique, iron deposits were identified (Figure 2). Given the clinical, endoscopic and histologic findings what is the diagnosis?

Diagnosis

Given the histologic and endoscopic findings the diagnosis of drug-induced esophagitis (ferrous sulfate) complicated by stenosis was confirmed. Nasogastric tube was placed by over-the-wire technique for enteral nutrition. Ferrous sulfate was suspended and the patient maintained proton-pump inhibitor treatment. Subsequently tow *Savary-Gilliard* dilations were performed (from 7 to 17 mm in diameter). After medical and endoscopic therapy, symptoms resolved.

Acute drug-induced esophagitis is a rare condition (1). Although ferrous sulfate has been described as a causative agent, the disease is usually transient and self-limiting in this setting (2,3). Esophageal stenosis due to

Submission date : 23/03/2020 Acceptance date : 31/03/2020

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iron deposits, as documented in this case is extremely rare.

Acknowledgements

Silva JC wrote the manuscript. Ponte A and Carvalho J revised the paper critically for important intellectual content. Gomes C, Afecto E. participated in patient management during hospitalization. All authors approved the final version of the manuscript.

Abbreviations

EGD : Esophagogastroduodenoscopy. UES : Upper Esophageal Sphincter.

Conflicts of Interest

The authors declare no conflict of interest for this article.

Informed consent was obtained from the patient.

Keywords : Drug-induced-esophagitis, esophageal stenosis, ferrous sulfate.

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