Iron-induced esophageal ulceration

Esophageal inflammation or ulceration is a well recognized side-effect of some oral medications, especially nonsteroidal anti-inflammatory or potassium chloride tablets. A similar injury can be induced by iron but endoscopically detected lesions are rarely reported [1,2]. An 82-year-old woman presented a sudden complaint of dysphagia after ingestion of a ferrous sulphate tablet. She had chronic esophageal reflux and Raynaud’s syndrome. Her physical examination was normal. An upper endoscopy revealed a black-brown, ulcerated and necrotic lesion, just below the upper esophageal sphincter, 2 cm in length, well circumscribed and associated with a slight stenosis. Below the lesion the esophageal lumen was distended and atonic, with candidiasis and a grade D peptic esophagitis (Fig. 1). Histological evaluation revealed ulcerated esophagitis, with acute inflammatory granulation tissue containing abundant brown crystalline nonbirefringent material, confirmed as iron by Perl’s staining (Fig. 2, 3). Other stainings for brown pigments and infections were negative. The patient’s iron tablets were stopped and a high dose proton pump inhibitor was prescribed. The dysphagia was relieved and a repeat upper endoscopy revealed progressive resolution of the necrosis and stenosis (Fig. 4, Video 2). Treatment requires stopping the offending drug or, if iron is still necessary, changing to a liquid preparation [3,5].

M. Areia 1, R. Gradiz 2, P. Souto 1, E. Camacho 2, M. R. Silva 2, N. Almeida 1, A. Rosa 2, M. F. Xavier da Cunha 2, M. C. Leitão 1
1 Department of Gastroenterology, Coimbra University Hospital, Coimbra, Portugal
2 Department of Pathology, Coimbra University Hospital, Coimbra, Portugal

References

1 Abbarah TR, Fredell JE, Elenz GB. Ulceration by oral ferrous sulfate. JAMA 1976; 236: 2326

Bibliography
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Corresponding author
M. Areia, MD
Department of Gastroenterology
Coimbra University Hospital
3000-075 Coimbra
Portugal
Fax: +351-239-701517
miguel.areia@netcab.pt

Video 1
Upper endoscopy at day 1 revealed a black-brown, ulcerated and necrotic lesion, just below the upper esophageal sphincter and a distended atonic esophagus.

Video 2
Upper endoscopy at day 8 showing the progressive resolution of the lesion with a circumferential brown-pigmented lesion with no necrosis or stenosis.