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Ischemic gastritis due to oral iron

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Dear Editor,

Many drugs can damage the gastrointestinal mucosa. NSAIDs are the most characteristic and others may cause lesions in the digestive tract. We present a case of hematemesis due to iron intake.

Case report

A 91-year-old male with anemia treated with ferrous sulfate presented with abrupt hematemesis. There was no hemodynamic instability or abdominal pain. Blood tests showed Hg of 7.2 g/dl, MCV at 83.2 fL, urea at 48 mg/dl and a prothrombin rate of 68%. Gastroscopy showed scarce hematic remains, ischemic body-fundus mucosa, erosions with fibrin and the adjacent mucosa had a brownish-blackish tint (Fig. A). A biopsy was performed and the pathology examination reported epithelium with fibrinoleukocytic eschar and yellowish-brownish material, which was also present in the *lamina propria* and the glandular and foveolar cell cytoplasm. The pigment tested positive with the Perls technique (Fig. B). These findings were compatible with iron-pill induced acute ischemic gastritis (IG). The patient was discharged and the oral treatment was suspended. He did not present with new episodes.

Discussion

This entity is difficult to diagnose, as the lesions do not show a pathognomonic image. The main diagnostic elements are endoscopy, histology and clinical suspicion (1). The pathogenesis is uncertain and can be a direct harmful effect of oral iron intake or indirectly cause thrombosis, necrosis and inflammation. Thus, preventing mucous healing and allowing the lesion to progress (2).

Main symptoms of chronic IG are abdominal pain, vomiting, gastroparesis and constipation (3). The acute form presents as abdominal pain and digestive hemorrhagic symptoms. The diagnosis is frequently delayed due to the lack of clinical suspicion, which may result in a worse prognosis. Chronic IG presents in the greater curvature or in the posterior wall, with multiple and irregular ulcers, with a whitish color, surrounded by an erythematous and elevated mucosa. The acute form presents as ulcerated areas with necrosis and hemorrhage foci. A brownish-blackish color material is deposited on these lesions (4,5). Microscopically, they are characterized by mucosal necrosis with intracellular iron deposits.

An oral iron prescription is not free of risks, especially in elderly patients with multiple comorbidities. The appearance of this entity should be monitored in cases of worsening anemia or a lack of recovery in order to avoid complications.

References

1. Haig A, Driman DK. Iron-induced mucosal injury to the upper gastrointestinal tract. *Histopathology* 2006;48:808-12. DOI: 10.1111/j.1365-2559.2006.02448.x
2. Parfitt JR, Driman DK. Pathological effects of drugs on the gastrointestinal tract: a review. *Hum Pathol* 2007;38:527-36. DOI: 10.1016/j.humpath.2007.01.014
3. Melit LE, Marginean CO, Mocanu S, et al. A rare case of iron-pill induced gastritis in a female teenager: a case report and a review of the literature. *Medicine* 2017;96:e7550. DOI: 10.1097/MD.0000000000007550
4. Aguilar Urbano VM, Domingo González S, García Fernández G, et al. A rare cause of gastric ulcer. *Gastroenterol Hepatol* 2010;33:504-7. DOI: 10.1016/j.gastrohep.2010.04.003

5. Quentin V, Dib N, Thouveny F, et al. Chronic ischemic gastritis: case report of a difficult diagnosis and review of the literature. *Endoscopy* 2006;38:529-32. DOI: 10.1055/s-2006-925228

Fig. A. Endoscopic findings. An eroded mucosa is observed in a segmental way and ulcerated areas covered with fibrin in the body and fundus, without active bleeding during the endoscopy examination. B. Perls staining 200x. The Perls technique showed that this material was iron (bluish colour), which was also found in the cytoplasm of some epithelial cells.

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