

Title:
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Drug-induced sudden dysphagia

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Dear Editor,

Doxycycline is a tetracycline antibiotic that can potentially cause mucosal damage by acting as a caustic. If the capsule is taken inappropriately and remains in contact with the esophagus for a prolonged period, it may cause esophagitis-like lesions and ulceration (1,2). To avoid upper gastrointestinal tract adverse events, doxycycline should be taken during a meal, with a large glass of water, and lying down for at least an hour afterwards should be avoided (3).

Case report

A 23-year-old male being treated with doxycycline capsules for rosacea presented to the hospital Emergency Room with precordial pain, retrosternal knotting sensation and sudden-onset dysphagia on solids. He was previously asymptomatic and the possibility of impaction was excluded. As basic laboratory tests and electrocardiogram were normal, an urgent eosophagogastroduodenoscopy was performed, which revealed a superficial esophageal ulcer with fibrin occupying the entire circumference of the upper esophagus (Fig. 1), without any other lesions.

Assuming that the ulcer was secondary to treatment with doxycycline, as subsequently confirmed by the anatomopathological diagnosis (“mucosal and submucosal inflammatory changes consistent with drug-induced esophagitis”), the drug was discontinued and treatment with omeprazole started. One month later, the patient has clinically and endoscopically recovered, showing adequate oral tolerance without medical treatment.

Discussion

In general, drug-induced esophageal injury occurs by a direct mechanism of drug-mucosal contact, which could be avoided with proper administration instructions. However, when it does occur, the majority of lesions are mild and reversible (4), as in the case reported here. More rarely, endoscopic findings are severe and cannot be easily explained by contact, as shown in the reported case of nivolumab-induced acute esophageal necrosis (5), where a black, necrotic section of esophagus appears in a 73-year-old patient with chronic obstructive pulmonary disease (COPD) and stage IV lung adenocarcinoma. In this situation, the combination of the patient’s characteristics (age, medical and oncological condition) and the drug’s mechanism of action (inhibition of the PD-1 receptor on T lymphocytes, which favors their activity on cancer cells but also on any healthy tissue) seems a more logical explanation for the reported adverse effect. This cannot be classified as a predictable and avoidable iatrogenic effect, as in the case of doxycycline.

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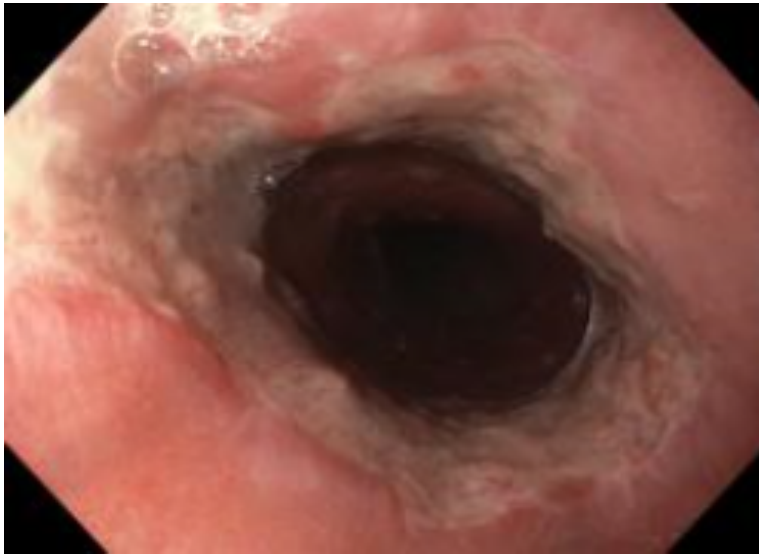


Fig. 1. Endoscopic view: superficial ulcer with fibrin, approximately 2 cm in size, occupying the entire circumference of the esophagus.