Dear Editor,

Osteoporosis is a disease which produces a progressive loss of the bone mineral density, which favors bone fractures. Other than methods of treatment such as diet exercise and supplements of calcium and vitamin D, there are drugs such as bisphosphonates that have proven to be very effective in reducing the risk of fractures, and are considered as the first choice in the treatment for osteoporosis (1).

Although considered safe drugs, they are not exempt from side effects (2,3). With gastrointestinal side effects, the most frequent are dyspepsia and nausea, although there have also been reported on few occasions, serious cases of esophagitis and esophageal stenosis (4,5).

We are going to present a case of serious esophageal stenosis caused by alendronate which needed dilations of the esophagus to resolve it.

Case report

We present the case of a 79 year old male with previous history of eosinophilic cellulitis at the age of 76, treated with corticosteroid for 2 years, episodes of dysphagia (3 years prior he had a gastroscopy and the biopsies showed atrophic gastritis and normal esophageal manometry), B12 deficiency, vasovagal syncope, fracture of the left clavicle and left femur due to osteoporosis. He was treated with omeprazol, vitamin B12, calcium, vitamin D, alendronate 70 mg weekly (this treatment was started 11 months prior to this episode), hydroxicine, mirtazapine and paracetamol.

He was admitted due to a new syncope vasovagal. During his admission he choked while having his breakfast, detaining a piece of food. Gastroscopy showed, at 33 cm from the incisors, a concentric esophageal stenosis covered in fibrin which extended 5 cm to the cardia which caused difficulties for the endoscopy to pass. The corresponding biopsies showed an esophageal ulceration with epithelium in regenerative phase without signs of malignancy. The patient needed to be put on a diet and have his drugs crushed or suspended due to his inability to swallow pills. Once received the biopsies, a dilation of the stenosis of the distal esophagus was performed with a pneumatic balloon which inflated to 15 mm, another dilation was performed up to 18 mm 15 days later. While discussing the situation with the patient, he informed us that 2 weeks beforehand, after taking his dose of alendronate, he became aware of the sensation that the pill was stuck in his esophagus with retrosternal disturbance, despite following the correct procedure on how to take his pills. Eight months later, another gastroscopy was performed and the esophagus was normal, without a hiatal hernia and no recurrence of dysphagia.

Alendronate can cause esophagitis and serious esophageal stenosis and if these symptoms occur, then the suspension of the treatment is recommended (3). Almost all of these cases are due to administration errors, previous digestive problems which do not favour its use, or, as in our case study, the patient was unable to identify the symptoms and didn’t seek medical advice (5).

The appearance of odynophagia or dysphagia requires an endoscopy to rule out lesions in the esophagus (6). A study conducted by Naniwa et al. (9) suggests that an immunological mechanism mediated by T cells develops the lesion, but more studies have been deemed necessary to accept this hypothesis.

The majority of cases reported occur in the first days of treatment, but there are others that take longer (5) and although esophagitis can be solved by stopping the treatment, there are cases of stenosis that, in the case of this patient, will need endoscopic dilations to solve it (3).
Despite the fact that bisphosphonates are drugs are widely used in daily practice, the serious side effects documented are anecdotes and are generally related to inadequate intake of dose, or previous digestive problems that have not been correctly evaluated. At present, there is no evidence to limit the use of these medications and the balance between risk/benefit weighs in favor of the benefits. In any case, an appropriate prescription is strongly recommended, thorough instructions on how to take them for patients, and quick identification of any complications or side effects. The apparition of pills in monthly dose could minimize risks for the future, and increase the adherence to the treatment (2).

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