

Letters to the Editor

Gastroduodenal phytobezoar treated with Coca-Cola®

Key words: Gastric phytobezoar. Cola. Dissolution.

Dear Editor,

After reading with great interest the clinical case recently published in your journal by Guerra et al. (1) we would like to use this opportunity to communicate our experience in the treatment of bezoars. Phytobezoar is the most frequent type, with a male sex predominance and its development is related to the ingestion of rich vegetable fiber foods. Upper endoscopy is the diagnostic technique of choice, which can also be therapeutic (2). Treatment of bezoars can be medical, surgical, or endoscopic. Although medical treatment is often complementary to the endoscopy, there have been published cases where it was successful on its own (3-5). The pharmacologic approach includes from diet measures and the use of prokinetics, to the enzymatic dissolution of the bezoar with agents like cellulase, first described in 1968 (4), that shows the best results, with a 83-100% of effectiveness (2,6).

Another dissolving agent that has been used in the treatment of bezoars is Coca-Cola®. Ladas et al. (7) reported, in 2002, the beneficial effects of this soft drink, including its *light* version for diabetic patients. The dissolvent property of this product is related to its active component, the phosphoric acid that maintains the pH around 2.6, coupled with its bicarbonate content, of mucolytic action, and the CO₂ bubbles. There are several Spanish publications describing the use of Coca-Cola® to treat bezoars, being in some cases successful after failure of endoscopic fragmentation (8) and also after failed dissolution by an enzymatic drug (3).

On the other hand, in another reported case, after four days of drinking Coca-Cola® without success the bezoar was finally dissolved with cellulose (4).

In the case presented by our colleagues (1), a 61 year old male, with a past surgical history of antrectomy, truncular vagotomy and gastroduodenostomy several years before because of a complicated peptic ulcer, presented to the hospital with episodes of intense epigastric pain, followed by vomiting. Physical exam revealed a mobile epigastric mass, painful to palpation. Computerized tomography showed a gastroduodenal bezoar filling completely the duodenal lumen. Upper endoscopy revealed a compact mass made of food particles that precluded aspiration, so it was fragmented and a partially extracted. Complementary treatment was started with one liter of Coca-Cola® daily by a nasogastric tube. After six days of treatment, a follow up gastroscopy showed a complete absence of the bezoar, and mild esophagitis as the only finding. The patient remained hospitalized until he had a normal bowel movement, in order to discard a distal small bowel occlusive process caused by the bezoar (9).

Although there is no consensus about the treatment of bezoars, we believe that the first therapeutic approach in the case of phytobezoars should be an upper endoscopy. If it is not efficient, substances capable of enzymatic degradation, or Coca-Cola®, should be used, being our experience with the latter very positive, as a therapeutic as well as a preventive (2,4) agent. If conservative treatment fails or complications develop (10), the bezoar should be approached surgically, ideally by laparoscopy.

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