Farm Hosp. 2009;**33(2):**100-3

Farmacia HOSPITALARIA

www.elsevier.es/farmhosp

BRIEF REPORT

Cellulase treatment in 3 cases of large phytobezoars

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Received May 26, 2008; accepted March 2, 2009

KEYWORDS
Phytobezoar;
Cellulase;
Intestinal obstruction;
Conservative treatment;
Endoscopy

Abstract
Introduction: A bezoar is a hard mass of undigested foreign matter found in the gastrointestinal system. The most common type is the phytobezoar, which is composed of vegetable fibres. There is no current consensus as to its treatment. Three cases of phytobezoars treated with cellulase are described.
Patients and method: Case 1: patient with large gastric phytobezoar. Initial treatment with nasogastric cola drink lavages was ineffective. Subsequent treatment with cellulase was successful. Case 2: patient with gastric phytobezoar who was treated with cellulase and metoclopramide. Definitive fragmentation was performed with the endoscopy technique. Case 3: patient with large intestinal phytobezoar. The patient was treated by endoscopic lysis with partial success. Subsequent treatment with cellulase led to complete disintegration. In all the cases, cellulase was administered in pure form by nasogastric tube, and none of the patients suffered adverse effects.
Conclusions: Treatment with cellulase is based on the enzymatic degradation of the bezoar. It has been shown to be effective as the treatment of choice in earlier studies with few patients. This agent seems to be a good alternative for patients with large phytobezoars.

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1130-6343/$ - see front matter

PALABRAS CLAVE
Fitobezoar;
Celulasa;
Obstrucción intestinal;
Tratamiento conservador;
Endoscopia

Tratamiento con celulasa en 3 casos de fitobezoares de gran tamaño

Resumen
Introducción: Los bezoares son concreciones de material extraño no digerido localizadas en el tracto gastrointestinal. Los más comunes son los fitobezoares, formados por restos vegetales. Actualmente no hay consenso sobre su tratamiento. Se describen 3 casos de fitobezoares tratados con celulasa.
Pacientes y método: El caso 1 es un paciente con fitobezoar gástrico de grandes dimensiones. Se trató inicialmente con lavados de bebida de cola por sonda nasogástrica, pero resultó inefectivo. El tratamiento posterior con celulasa tuvo éxito. El caso 2 es un paciente con fitobezoar gástrico que se trató con celulasa y metoclopramida. La fragmentación definitiva se realizó mediante técnica endoscópica. Y el caso 3 es un paciente con un gran fitobezoar intestinal. Se trató mediante lisis endoscópica, que tuvo un éxito parcial. Posteriormente recibió celulasa y la disgregación fue completa. En todos los casos se administró celulasa como sustancia pura por sonda nasogástrica y ningún paciente presentó efectos adversos.
Conclusiones: La terapia con celulasa se basa en la degradación enzimática del bezoar. Ha demostrado eficacia como tratamiento de primera elección en estudios previos de pocos pacientes. Este agente parece una buena alternativa en pacientes con fitobezoares de gran tamaño.

Case 1

The patient is a female of 83-year-old, with no history of digestive pathology, who attended the emergency department due to general colicky abdominal pain which had developed over 1 month, with alteration in bowel movements, a clinical picture of gastroesophageal reflux, asthenia, and anorexia. She presented with an enlarged stomach with the sensation of obstruction of the left hemiabdomen on touching. A simple radiograph of the abdomen showed an accumulation of bubbles of gas in the left hemiabdomen which was initially thought to be an accumulation of faeces. Computerised tomography (CT) showed significant gastric swelling with abundant solid waste. An upper gastrointestinal endoscopy confirmed the intragastric presence of a large phytobezoar and probable partially stenosing pylorobulbar neoplasm. A nasogastric (NG) aspiration tube was inserted and coca-cola lavage was started every 8 h for 4 days. The clinical picture did not improve and therefore coca-cola lavage was replaced by cellulase treatment (Cellulase from Roig Farma, Fagron group, Barcelona). A total of 5 g in 300 mL of water instilled for 2 h a day was administered via the NG tube for 5 days. The volume of gastric waste suction increased and the abdominal swelling improved significantly. The disappearance of phytobezoar was confirmed via simple radiography. Subsequently, once the neoplasm was confirmed as a poorly differentiated gastric adenocarcinoma, a full gastrectomy was performed. There were postoperative complications, with peritoneal infection and secondary sepsis, which required admission to the intensive care unit (ICU) 1 week following the intervention. Finally, the patient died from septic shock 24 h after admission into the ICU.

Case 2

A male patient of 68-year-old, who had undergone a cholecystectomy and Billroth type II gastrectemy 20 years previously for a peptic ulcer, with anastomic leakage in an endoscopic control 3 years previously. The patient attended the emergency department due to abdominal pain in the left lumbar region lasting 3 days, accompanied with nausea, postprandial vomiting, diarrhoea with no traces of blood, and anorexia, with weight loss of 3-4 kg in the last month. The patient complained of frequent dyspepsia and early satiety, which was treated with omeprazole and almagate. In the physical examination the abdomen was soft but painful to touch. A simple radiograph of the abdomen showed an accumulation of bubbles of gas distributed throughout the left upper quadrant (Figure 1) and the CT showed gastric swelling with abundant retention of solid food compatible with a phytobezoar.

An NG aspiration tube was inserted and treatment with intravenous metoclopramide (10 mg every 6 h) and cellulase (5 g a day) was started for 5 days, administered in the same way as in case 1. A gastrointestinal endoscopy performed 24 h after finishing treatment showed vegetal waste forming a mass with a diameter of 4 cm and of average consistency.