

Formation of Bezoar in an Elderly Patient with Alzheimer's Disease: Bezoar in a Patient with Alzheimer

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ABSTRACT

Bezoar is characterized as a mass that derives from a non-digestible foreign material and that accumulates in the gastrointestinal tract, usually in the stomach. This phenomenon usually occurs in people with some type of comorbidity or that have certain predisposing factors, such as gastrointestinal motility disorders or some psychiatric illness. There are different types of ingested materials that favor the formation of the bezoar and among the known materials we highlight the mattress foam, that generates an occupational bezoar. We report an unusual case of upper gastrointestinal bleeding due to gastric ulcers, resulting from an occupational bezoar in an elderly patient with Alzheimer's disease, which was only discovered due to the symptoms of frequent vomiting and subsequently due to hematemesis and melena, due to gastric ulcers formed. The prevention of these incidents is a safe practice that must be performed by all professionals who deal with the elderly people with some type of vulnerability, especially those who has Alzheimer's disease.

Keywords: Bezoar, Alzheimer disease, elderly, digestive endoscopy.

INTRODUCTION

Bezoars are concretions of indigestible material that accumulate in the gastrointestinal tract, most commonly the stomach, due to changes in gastrointestinal motility, the presence of other diseases, and comorbidities, such as psychiatric illness.¹

Some studies show that less than 0.5% of bezoars are found in the stomach and 0.4 to 4.8% of them are found in the small intestine, causing obstruction and most cases affect adolescents and women with a history of psychiatric illnesses or are related to some disorders of the gastrointestinal tract.²⁻⁵

In this study we report an unusual case of upper gastrointestinal bleeding from gastric ulcers, resulting from an occupational bezoar in an elderly patient with Alzheimer's disease. All CARE recommendations (CARE REport) have been followed for the preparation of this article.⁶

CASE REPORT

JMS, 89-year-old male, widower, born and raised in Gama-Distrito Federal, Brazil, previously diagnosed with Alzheimer's 10 years ago and under investigation for iron deficiency anemia, when he presented an episode of upper gastrointestinal bleeding, followed by melena and recurrent episodes of vomiting.

On physical examination, he was in fair general condition, pale +++ / 4+, dehydrated ++ / 4+, anicteric, eupneic, acyanotic, hemodynamically stable without the use of vasoactive drugs, afebrile, bedridden, without limb edema. lower, interacting little with the external environment.

Respiratory system with vesicular murmur present in both hemithorax without adventitious sounds. The cardiovascular system had normal two-beat heart sounds with a systolic murmur. The abdomen was flat, flaccid, painless on superficial and deep palpation, without visceromegaly and with the presence of air-fluid noises.

Laboratory analyzes showed the following results: calcium: 8.5 mg/dl, blood glucose: 104 mg/dl, potassium: 4.2 mEq/l, sodium: 122.1 mmol/l, urea: 53 mg/dl. dl, hemoglobin: 9 g/dl, hematocrit: 30%, leukocytes: 10,600 cells/mc/L, platelets: 361,000 mc/L.

Total abdominal tomography without contrast showed a misaligned fracture of the left femoral neck that was partially evaluated in the present study. Right trochanteric eschar with signs of an inflammatory/infectious process in the adjacent subcutaneous tissue. There are no other changes in other organs.

The patient underwent an upper gastrointestinal endoscopy with an OLYMPUS EVIA EXERA III CV 190 device, finding two bezoars in a small curvature of the body and part of the angular notch and another in the small curvature of the antrum, dark in color, similar to a steel sponge (Figure 1). The material was removed by endoscopy, requiring two tests to be performed at different times for the total removal of the bezoar. The presence of two gastric ulcers was verified, covered with fibrin, clean, with well-defined borders, without convergence of folds, hidden by the bezoar (Figure 2). A biopsy of the gastric mucosa adjacent to and surrounding the ulcer was performed for histopathological analysis.

All histological analyzes were negative for neoplasia, corroborating the macroscopic evaluation of the ulcer due to its benign appearance. Upon analysis of the bezoar, the material was found to be compatible with the foam mattress used by the patient to prevent pressure ulcers. According to the companion's account, the patient had the involuntary habit of removing the foam with his hand. After endoscopic removal of the bezoar and subsequent treatment of the ulcers, the patient had no further episodes of melena or hematemesis. He still remained in the hospital for a long period, due to other pre-existing comorbidities.

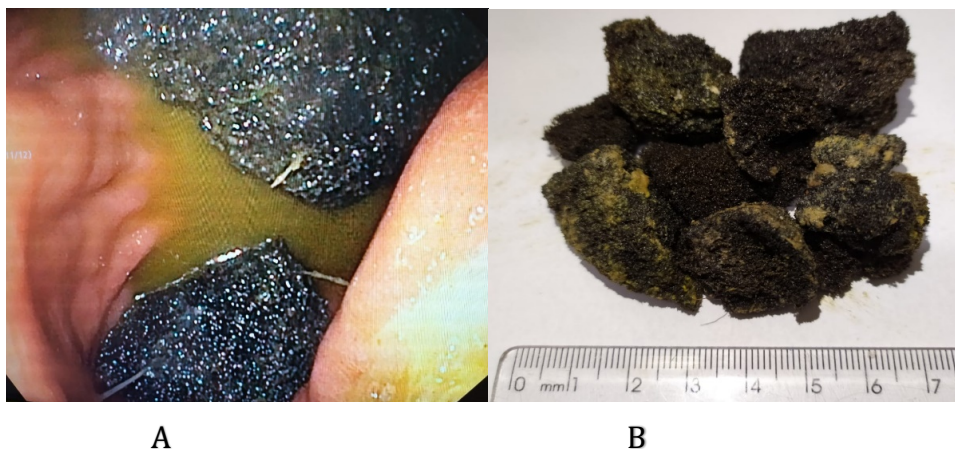


Figure 1: Image of an occupational bezoar formed by an "eggshell" mattress foam in the gastric cavity (A) and part of it already outside the stomach (B)



Figure 2: Endoscopic images of an ulcer in the small curvature of the body and part of the angular notch and another in the small curvature of the antrum

DISCUSSION

Bezoars form from undigested (or partially digested) material that accumulates in the gastrointestinal tract. Its name has Arabic origin, which means "eliminate the poison", that is, the formation of bezoars is nothing more than the human body's attempt to eliminate a foreign material that is not being digested.⁷

These concretions can be classified according to the variety of material ingested. Thus, bezoars are classified as: a) phytobezoars: derived from vegetables, leaves and fruits that were not digested, being the most common form of finding; b) pharmacobezoars: derivatives of drugs, such as antacids. Especially if the drug carrier is made of cellulose acetate, this material can aggregate and form the bezoar, especially if the drug is a gradual release of its active ingredient; c) trichobezoars: ingested hair derivatives. These are rarer cases and are generally associated with young women with some psychological imbalance; d) lactobezoars: derivatives of concentrated milk formulas for infants that were not digested; e) other types: known as occupational bezoars, they are derived from not so common materials, such as wood, foam, fungi, plastic and paper.^{1,7}

In this study, we observed an unusual case of occupational bezoar in a patient with Alzheimer D. that was only discovered due to symptoms of frequent vomiting and later due to hematemesis and melena, due to formed gastric ulcers.

Bezoars can be asymptomatic or symptomatic, with a wide variety of gastrointestinal symptoms. In a study of 31 patients, abdominal pain, blood in the stool, postprandial fullness, nausea, vomiting, and hematemesis were observed. It is important to emphasize that some patients are asymptomatic, so the diagnosis is made through complementary tests in routine consultations.⁸⁻¹²

Heemasis and anemia presented by the patient are justified by gastric ulcers that were formed by pressure necrosis of the mucosa, induced by bezoar.¹²

The sequence for the diagnosis of a proposed bezoar usually begins with the clinical history of the patient. It is important to ask if there is a history of trichophagia. Later, we can use additional tests: simple abdominal radiography (the gastric cavity is normally distended, and the silhouette of the bezoar is observed), abdominal ultrasound (a large intraluminal mass can be seen) and computed tomography, in which we can observe a mass hypodense in the abdominal cavity.¹³

These tests mentioned above are important for cases of doubt. Thus, the main examination is endoscopy through direct identification of the bezoar in the digestive tract.¹³

In the literature, we observe three ways of treating patients who form a bezoar, establishing the first option as the conservative way, without invasive tests, prescribing solvent enzymes, such as acetylcysteine, which softens the bezoar, allowing it to fragment more easily, allowing its spontaneous and natural elimination by the organism and expelled by the patient. In addition, gastric lavage is also widely used to remove bezoar.¹⁴

The second way used is the extractive method, which is generally used in cases of larger bezoars that can cause obstruction of the gastrointestinal tract, requiring more invasive tests such as upper gastrointestinal endoscopy.¹⁵

Finally, the third type of treatment is surgery – which is also considered another extractive method – reserved mainly for cases of bezoar impaction in the ileum. Therefore, laparotomy or laparoscopy is recommended to remove the material so as not to cause further damage to the patient's digestive tract.¹⁶

In the present case, the choice adopted was the extractive form of treatment, since the patient presented recurrent vomiting and formation of ulcers with bleeding, the result of two bezoar formations in the gastric cavity.

Older people with dementia should focus more on preventive aspects, since many accidents or morbidities can have their causes interrupted early.¹⁷

This thought ratifies the case that is presented, since it is an elderly patient with Alzheimer's disease, bedridden and exposed daily to easily accessible and very malleable material, which

allows the patient to continuously remove fragments and swallow them, without Nobody sees them or prevents them.

We know that the increase in life expectancy is closely linked to the greater number of chronic non-communicable diseases, which are responsible for 60% of deaths¹⁸ and 80% of the elderly will have at least one of these chronic diseases¹⁹. We highlight dementia as the main cause of compromising the quality of life of the elderly, leaving them increasingly vulnerable to accidents²⁰.

Due to this vulnerability presented by patients with any type of dementia, family members, caregivers and health professionals who provide care to patients at home / nursing homes / clinics or hospitals, must be aware of any exposure of these older people to easily accessible materials. that sometimes seem harmless, but can cause important physical or functional disorders, with the consequent aggravation of morbidity.

CONCLUSION

The prevention of incidents caused by occupational bezoar is a safe practice that must be carried out by all professionals who care for elderly people with some type of vulnerability, especially those with Alzheimer's disease.

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