Gastrointestinal Bezoarlar

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Bülent Kaya[1], Mehmet Yaşar[2]
[1]Fatih Sultan Mehmet EAH Genel Cerrahi Kliniği
[2]Düzce Üniversitesi Tıp Fakültesi Genel Cerrahi ABD

Özet

Bezoarlar sindirilmemiş besinler, ilaçlar, saç gibi maddelerin alınması sonucu oluşan yabancı maddelerdir. Gastrointestinal sistemde en sık midede görülürler. Bezoarların büyük bir kısmı çocuklarda ve genç bayanlarda tespit edilir. Bu hastalarda psikiyatrik bozukluklar görülebilir. Temel olarak 4 farklı bezoar tipi tanımlanmıştır. Bunlar;Fitobezoar,trikobezoar, farmakobezoar ve laktobezoar olarak adlandırılmıştır. Ağrı, erken doygunlukhissi, karında şişkinlik gibi şikayetler esas semptomlardır ve kanama, intestinal obstrüksiyon, perforasyon gibi komplikasyonlara neden olabilirler. Tedaviseçenekleri;medikalajanlar,endoskopik girişimler, laparoskopik ve konvansiyonel cerrahidir.
Anahtar Kelimeler: Bezoar, tedavi yaklaşımları

Abstract

Bezoars are foreign materials that are formed by mainly accumulation of undigested foods, medications or hair. They are most commonly seen in stomach. They are usually found in children and young women. There are four types of bezoarsincludingphytobezoar,trichobezoar,lactobezoar and pharmacobezoar. Pain, earlysatiety,abdominal bloating are main symptoms and complications like hemorrhage, intestinal obstructionand perforation may occur. The treatment alternatives are medical agents,endoscopic interventions and laparoscopic and conventionalsurgery.
Key words: *Bezoar, Treatment modalities*

İletişim (Correspondence):
Uzm.Dr. Bülent KAYA/İstanbul Üniversitesi Çapa Tıp Fakültesi
E-Mail: drbkaya@yahoo.com
Tel: 905056822101

İntroduction

A bezoar is an agglomeration of food or ingested foreign material in the gastrointestinal tract. The term bezoar is derieved from either the ancient Arabic ' Badzehr' or the Persian 'Pahnzehr' both meaning counter-poison or antidote (1,2). In the past, bezoars were used to treat poisons such as arsenic, venomous bites. They were extracted from stomach or intestines of animals. The first trichobezoar was defined in 1779, since then many different types of bezoars have been reported in literature (3).Bezoars can be classified according to their components: The main types are phytobezoar, trichobezoar, lactobezoar and pharmacobezoar
(Table I).

MAIN BEZOAR TYPES

1- PHYTOBEZOAR	Undigested food particles
2- TRICHOBEZOAR	İngestion of hair, carpet etc
3- PHARMACOBEZOAR	Aggreation of some medications
4- LACTOBEZOAR	Undigested milk and concantreated formulas

Table I- Bezoar types

Phytobezoars are mainly formed by indigestible fruits, vegetable fibers, skin, or seeds. Phytobezoars are usually detected in adults with a history of previous gastric surgery, reduced gastric acidity, poor gastric mixing, or delayed motility. Trichobezoars, are congrelemation of hairs or decaying food material .
Pharmacobezoars consist of undigested tablets or semi-liquid drugs. Lactobezoars are frequently found in low-birth-weight or premature neonates fed with a highly concentrated formula.They are most commonly found in stomach but may also be detected in small and large bowel. Gastric bezoars are usually formed in patients with altered gastrointestinal motility due to gastric surgery , medications or patients with psychologic problems.

Symptoms

Although bezoars may cause serious complications, most of the patients with bezoars are
asymptomatic . As the size of bezoar increases by time, vague and insidious complaints, like
epigastric discomfort, nousea and vomiting, early satiety, weight loss, poor appetite and malnutrition become apparent. The anatomic localization of bezoar is main factor that
determine the presenting symptoms. Dysphagia, reflux and retrosternal pain are main symptoms in esophageal bezoars. Stomach bezoars are often presented with pain, nousea and vomiting, weight loss, ulcer formation and pyloric obstruction. Bezoars located in small intestine are usually presented with intestinal obstruction. Wile small intestine has smallest diameter in ileum, most of the obstructions occur in this part. Cholestasis and pancreatitis are also reported due to bezoars. Perforation in gastrointestinal tract can occur and may cause acute abdomen (4) and mortality. A rare presentation of trichobezoar is Rapunzel syndrome(5) which is characterized by extension of bezoar into the small and sometimes the large bowel.

Diagnosis

Accurate preoperative diagnosis of bezoars is difficult. Physical examination may be helpfull in some patients. Mobile abdominal mass, alopecia, putrid odor in breath are subtle signs of bezoars. Air-fluid levels due to intestinal obstruction, a mass image in left upper quadrant can be detected in plain x-ray. Barium studies may disclose a filling defect.

Abdominal computed tomography is radiologic technique of choice specially for bezoars causing intestinal obstruction. A CT image of a bezoar is a well delineated, heterogeneous, ovoid intraluminal mass with gas bubbles. Ripolles T (6) et al reported 17 patients with gastrointestinal bezoars. Bezoars were diagnosed by CT in all patients with 100% accuracy.

Upper gastrointestinal endoscopy is diagnostic and also theropeutic for bezoars located in the esophagus and stomach. Phytobezoars are brown or green in colour and usually found in fundus or antral region of stomach. On the other hand, trichobezoars, like a hair ball seen as black due to enzymatic and acid oxidation of hair material in endoscopy.

Treatment

Medical Treatment
Some enzymes and chemical agents may be used in treatment of phytobezoars.Trichobezoars require surgical intervention. Cellulase and papain are proteolytic enzymes that can be successfull in enzymatic degregation of a bezoar. They cleave protein linkages within foreign materials. Lin CS (7) was reported good result with endoscopic coca- cola injection and irrigation. Acetylcystane without any side efffect was also used with gastric lavage for bezoar dissolution. (Table II)

MEDICAL AGENTS USED FOR BEZOARS

CELLULOSE
PAPAIN
ACETYCYSTEINE
METOCLORPRAMIDE
COCA-COLA

Table II- Medical agents used for bezoars

shows the medical agents that were used in management of gastric bezoars.While most of the trichobezoars are associated with psychiatric problems, protracted
phsyciatric treatment is very important in these patients.Endoscopy Endoscopy is beneficial in removal of small bezoars located in stomach. Most of the bezoars are so large that endoscopic fragmentation is mandatory. Endoscopic use of different enstruments have been described. Normal biopsy forceps, polypectomy snares, foreign body
forceps can be used for breaking up the bezoar. In some patients , endoscopic removal of a bezoar is difficult and serious complication like esophageal perforation can occur (8).

combination of endoscopic injection and irrigation with coca cola for gastric bezoar-induced
Surgery If the medical treatment and/or endoscopic removal are unsuccesful surgery become treatment of choice. KK(9).
Management of bezoars with minimal invasive surgery has some advantages when compaired to conventional surgery. Laparoscopic treatment is associated with shorter operative time and hospital stay, better cosmetic results, less postoparetive complication rates. Yaureported ten cases with bezoar-induced small bowelobstruction treated succesfully with laparoscopic approach. Laparoscopy can be dangerous in some patients with dilated and fragile intestinal loops and may be injured during procedureLaparotomy is indicated when minimal invasive techniques are unsuccesfull. Exposure and localization of the bezoar is essential. Stomach bezoars can be treated with gastrotomy and retreival of foreign material. Bezoars in small intestine may be milked to ileocecal valve and without enterotomy fragmentation of bezoar with fingers can be an easy method for treatment.İn some cases, intestinal resection is mandatory and increases morbidity and mortality.In conclusion, Although bezoars are rare pathologies in gastrointestinal tract their management is challenging and needed multidisiplinary approach.

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