Case Report

Trichobezoar: a case report

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Abstract

A bezoar refers to a mass of undigestible foreign material found in the gastrointestinal tract, mainly stomach. The second most common bezoar is the trichobezoar, which usually occurs in the young psychiatric female patients with history of trichotillomania and trichophagia. A 21-year-old female psychiatric patient with patchy alopecia came with complains of diffuse abdominal pain, vomiting, fever, and constipation. Barium X-ray and CT scan were done, which suggested trichobezoar. Thus, trichobezoar should be considered as differential diagnosis of abdominal pain in a young psychiatric female patients.

KEY WORDS: Bezoar, trichobezoar, trichophagia, hair ball

Introduction

A bezoar is a ball of swallowed foreign material (usually hair or fiber), which collects in the stomach and fails to pass through the intestine.[1] The exact origin of the term appears to be questionable. However, many writers have credited its root to the Arabian word "bezehr" or to the Persian word "padzehr," both of them meaning counterpoison or antidote.[2] From twelfth to eighteenth centuries, physicians used bezoars as antidotes against plague, snakebite, leprosy, and epilepsy.[3]

The classification of bezoars depends on their composition: trichobezoar includes hair; phytobezoar, vegetable matter such as skin, seeds, and fiber; lactobezoar, undigested milk curd; and lithobezoar, mud and stones.[4] The chief type is phytobezoars, which accounts for 40% of all the bezoars.[5] Trichobezoars form the next most common group, generally found in patients with psychiatric disorders such as trichotillomania (urge to pull out one's hair) and trichophagia (urge to eat one's hair). Nonetheless, they occur in only about 1% of the patients with these disorders.[6]

Trichobezoars in humans were first described from a postmortem by Swain in 1854.[7] The most frequent type of bezoar in adults is phytobezoar, while trichobezoar is more often found in children and teenage girls.[8]

Clinical symptoms related to the presence of a trichobezoar within the gastrointestinal (GI) tract are characterized by late onset and lack of specificity, causing late diagnosis. Diagnostic procedures are commonly initiated owing to acute abdominal symptoms.[9]

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A 21-year-old female patient came with a history of diffuse abdominal pain, vomiting, fever, and constipation. The patient was referred to the Radiology Department for barium X-ray and computed tomography (CT) scan. She revealed a psychiatric history and patchy alopecia.

On examination, the patient was conscious with generalized tenderness and guarding of the abdomen. There was sign of mild dehydration. Other systemic parameters were normal. Barium X-ray revealed multiple ill-defined filling defects with air density focus. In oblique view, the stomach was visible with large round filling defect, which contained air within the lesion [Figure 1]. Axial section CT of stomach revealed multiple small mixed hypoattenuated filling defects in a contrast-filled stomach with predominant air density [Figure 2].

Discussion

The incidence of trichophagia is up to 18% of the patients with trichotillomania; one-third of the patients with trichophagia develop trichobezoars.[10] In this case too, the patient

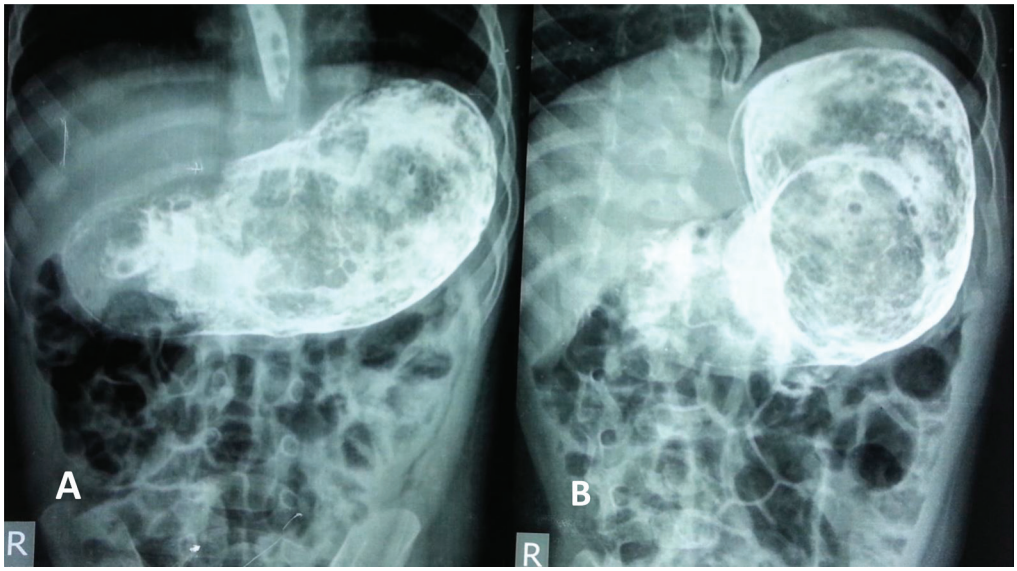

Figure 1: Barium X-ray. A: Barium-filled stomach shows multiple ill-defined filling defects with air density focus. B: In oblique view, stomach shows a large round filling defect that contains air within the lesion.

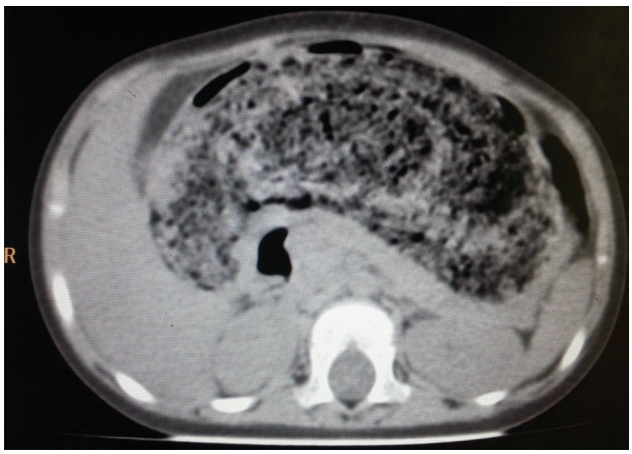

Figure 2: Axial section CT of stomach shows multiple small mixed hypoattenuated filling defects in a contrast-filled stomach with predominant air density.

showed psychiatric history, and evidence of patchy alopecia was found.

The digestion of human hair is not possible because of enzyme-resistant properties and smooth, slippery surface; it can be stagnant in the GI system. Subsequently, retention and accumulation of the eaten hairs in between the gastric mucosal folds occur, which result in the formation of a hair ball along with food and mucus.[11] Few cases show extension of the hair ball from the stomach into the small intestines and colon. This condition is named Rapunzel syndrome, which was first described by Vaughan et al.[12] in 1968.[13]

The characteristic symptoms of of trichobezoars are abdominal pain, nausea, vomiting progressing to obstruction, and peritonitis.[14] In this case, there was diffuse abdominal pain, vomiting, fever, and constipation.

Upper GI endoscopy not only constitutes the gold standard in the analysis of trichobezoar but also enables therapeutic intervention. However, a CT scan of the abdomen can disclose the presence of trichobezoar. The diagnostic accuracy of CT is reported to be 73% to 95%.[15] In this case, barium x-ray and CT scan were done for the diagnosis.

Bezoars were traditionally managed by open surgical retrieval (laparotomy). There is an emphasize on the significance of a minimally invasive surgical approach using laparoscopy in the treatment of GI bezoars in recent articles.[16–18] Intraoperative endoscopic removal has also been reported.[19]

Conclusion

Thus, trichobezoar should be considered as differential diagnosis of abdominal pain in young psychiatric female patients.

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