

An Unusual Cause of Obstruction of the Appendiceal Lumen: Acute Appendicitis Due to Trichobezoar: A Rare Case Report

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Abstract

Acute appendicitis is usually developing due to obstruction of the appendix and is one of the most common causes of emergency in surgical cases. Many factors are involved in the etiology like fecalith, stricture, foreign body, worm infestation, and neoplasm. Trichobezoars may be seen in the bowels and other parts of the gastrointestinal tract which may present with clinical symptoms like acute abdomen and gastric outlet obstruction. Our case is about a 16-year-old male who had acute appendicitis due to trichobezoar with a past history of psychological disorders. We would like to emphasize the importance of appendicitis due to foreign bodies, and also considering a trichobezoar formation in a patient with gastrointestinal obstruction symptoms, especially in the case with the previous history of trichophagia.

Keywords: Appendix; Acute appendicitis, Trichobezoar

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Introduction

Acute appendicitis usually develops due to obstruction of the appendix and is one of the most common surgical emergency cases. Many factors are involved in the etiology like fecalith, stricture, foreign body, worm infestation, and neoplasm (1). Among the causes of acute appendicitis, foreign bodies happen more frequently in children relative to adults. Various types of foreign bodies may obstruct the appendix lumen and cause acute appendicitis, but most foreign bodies generally do not cause any complications and pass spontaneously (2).

Trichobezoars are made of hair, which become hard like a mass and are usually found in the stomach.

Trichobezoars may be seen in the bowels and other parts of the gastrointestinal tract, with the patient possibly presenting with clinical symptoms like acute abdomen and gastric outlet obstruction (3).

Appendicitis due to foreign body obstruction may result in different signs and symptoms, such as abdominal pain, diarrhea and vomiting; it can be asymptomatic in some cases. Increased WBC counts may be seen due to inflammation. For diagnosis of trichobezoar, imaging can be helpful; for example, ultrasonography can differentiate mass-like lesions, and computed tomography (CT scan) can help to confirm the diagnosis; the final diagnosis is based on endoscopy (4, 5).

Trichobezoar in the gastrointestinal tract is more

often seen in women with a past medical history of psychiatric problems, including trichotillomania; physical examination for alopecia is thus helpful for diagnosis (5).

Case Presentation

A 16-year-old male patient came to the emergency department of Namazi Hospital (Shiraz, Iran) with chief complaint of abdominal pain and one episode of vomiting. In the physical examination, tenderness in the right lower quadrant was found; rebound tenderness was not present. His vital signs were normal, and in the laboratory analyses, a white blood cell (WBC) count of 11200 was reported. Abdominal ultrasonography (US) showed minimal free fluid in the abdomen and pelvis. The patient underwent surgery with the pre-diagnosis of acute appendicitis. During operation, it was observed that the appendix was inflamed, so appendectomy was performed. The patient had a past medical history of trichotillomania but was not on any medication and had not seen a psychiatrist. The patient described his action (trichotillomania) as an impulsive response.

In the gross examination, the congested appendix was 6 cm long and 1.5 cm wide. A mass of hair was found in the appendix lumen.

The histopathological investigation (Figures 1 and 2) confirmed the diagnosis, and a hair follicle was seen in the appendiceal lumen. Acute appendicitis and peri-appendicitis were confirmed by light microscopy.

Discussion

Foreign bodies generally pass through the gastrointestinal tract with no complications. Sharp foreign bodies are more likely to cause more severe complications than blunt foreign bodies. Hence, determining the type of foreign body is essential for the management of these patients (2, 3).

Four types of bezoar may occur, including phytobezoars (vegetables), trichobezoars (hair), lactobezoars (milk/curd), and miscellaneous bezoars (fungus, sand, paper, etc.). These bezoars are usually found in the stomach and cause gastric outlet obstruction, but they may also be found in other parts like the appendix or small bowel. Phytobezoars are the most common type of bezoar in adults, while trichobezoars are more frequent in children and teenage girls (3, 4).

We present a case of trichobezoar in a patient with trichotillomania, who presented with acute appendicitis. Trichobezoar ingestion is a rare gastrointestinal entity in adults. Our case presented with right lower quadrant abdominal pain, and management of acute appendicitis was done for him. A mass of hair was found in the lumen of the appendix.

Despite the low-frequency of cases of acute

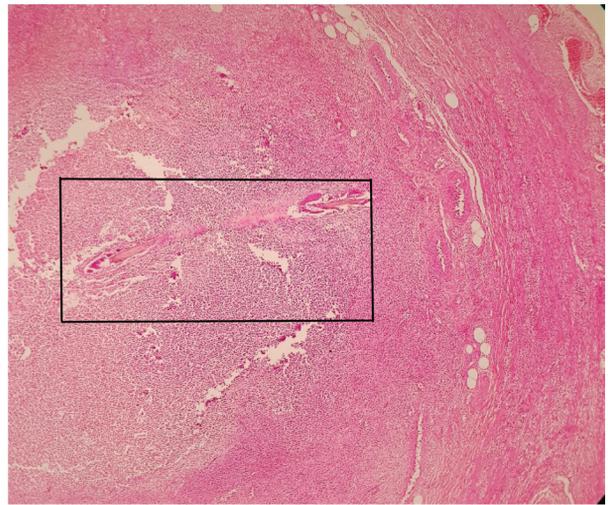


Figure 1: Cross-section of the appendix wall; the intraluminal hair shaft is shown (H&E $\times 100$).

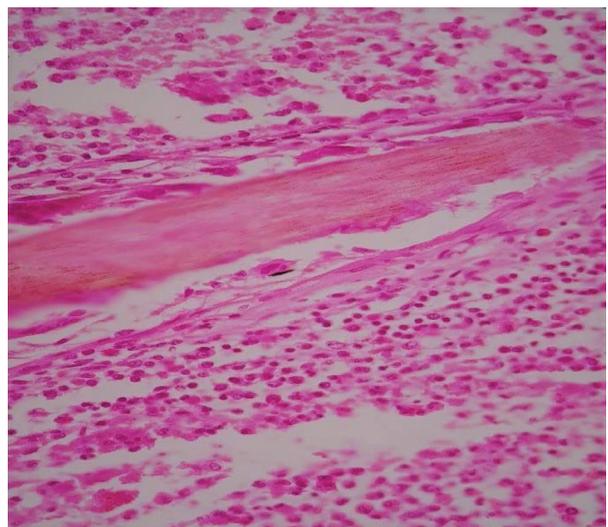


Figure 2: Cross-section of the appendix wall; the intraluminal hair shaft is shown (H&E $\times 400$).

appendicitis due to trichobezoar, the number of trichobezoar cases is more frequent in patients with mental illness, especially in the case of trichotillomania (5).

To the author's knowledge, trichobezoars are usually encountered in patients with underlying psychiatric disorders, such as depression, obsessive-compulsive disorder, and body dysmorphic disorder. Trichotillomania mostly occurs in psychotic young women who have the habit of plucking hairs or in mentally retarded children (5, 6). There are also some case reports in the literature in which cases of acute appendicitis caused by trichobezoar have been presented without any history of trichotillomania or evidence of hair loss. It is reasonable to assume that the degree of shame or guilt was enough for the patient, not to mention the psychiatric problem in some cases. Hence, it is essential to consider such a diagnosis in the face of suggestive symptoms during the investigation of a patient with gastrointestinal obstruction or any possible emergent manifestation of appendicitis, even if signs of trichotillomania are

not present (6).

Considering that most of patients with trichotillomania are admitted in psychiatric wards, trichobezoars and their complications may be underdiagnosed. On the other hand, most patients with trichobezoar are admitted in surgical wards, where the basis of mental illness may not be appropriately diagnosed and poor psychiatric follow-up may ensue (7).

The time between trichophagia and presentation of symptoms like abdominal pain, vomiting, and diarrhea may be prolonged, and we would like to emphasize considering trichobezoar formation

during the workup of a patient with gastrointestinal obstruction, especially in the case of a previous history of trichophagia. Careful gross and microscopic examinations are necessary to confirm this diagnosis (8, 9).

In conclusion, the possibility of gastrointestinal obstruction by trichobezoar and the presence of a trichobezoar should be considered in all patients with acute appendicitis, especially in cases with trichotillomania or previous history of trichophagia; psychiatric follow-up is mandatory to prevent relapses.

Conflict of Interests: None declared.

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