

**Case Report**

# Gastrointestinal Trichobezoid Revealed by Intussusception at the University Hospital of Conakry

Camara Fode Lansana<sup>1</sup>, Balde Abdoulaye Korse<sup>1</sup>, Camara Soriba Naby<sup>2</sup>, Balde Habiboulaye<sup>1</sup>, Diakite Saikou Yaya<sup>1</sup>, Balde Oumar Taibata<sup>1</sup>, Toure Ibrahima<sup>1</sup>, Balde Thierno Mamadou<sup>1</sup>, Diallo Amadou Dioulde<sup>1</sup>, Camara Alpha Kabine<sup>3</sup>, Doumbouya Bourlaye<sup>1</sup>, Toure Aboubacar<sup>4</sup>, Diallo Aissatou Taran<sup>4</sup>, Diallo Biro<sup>1</sup>

<sup>1</sup>Department of Visceral Surgery Donka National Hospital, Faculty of Sciences and Technic of Health Gamal Abdel Nasser University of Conakry, Conakry, Guinea

<sup>2</sup>Department of Visceral Surgery Friendship Hospital Sino-Guinean of Kipe Faculty of Sciences and Technic of Health Gamal Abdel Nasser University of Conakry, Conakry, Guinea

<sup>3</sup>Department Thoracic Surgery, Donka National Hospital Faculty of Sciences and Technic of Health Gamal Abdel Nasser University of Conakry, Conakry, Guinea

<sup>4</sup>Department of General Surgery, Ignace Deen National Hospital Faculty of Sciences and Technic of Health Gamal Abdel Nasser University of Conakry, Conakry, Guinea

**Email address:**

cnabysoriba@yahoo.com (C. S. Naby)

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**Abstract:** The aim of this is to make our contribution to the study of Gastrointestinal trichobezoid Introduction: The digestive bezoar is a conglomerate of indigestible substances trapped in the gastrointestinal tract. Aim: The aim was to report an exceptional case of a gastrointestinal trichobezoid revealed by acute intestinal obstruction by ileo-ileal intussusception and to discuss it with data from the literature. Methodology This was a 7-year-old girl who was referred to us from the Nutritional Institute at Donka National Hospital. She presented paroxysmal abdominal pain, vomiting, anorexia and physical asthenia without notion of gas stoppage, evolving for four months. On examination, the patient was in poor general condition with sunken eyeballs. The abdomen was the site of an epigastric mass, mobile and painful. The digital rectal examination noted an emptiness of the rectal bulb. The biological assessment revealed hyperleukocytosis (11.8giga/l); normochromium-normocytic anemia (10g/l). Abdominal ultrasound showed prominent images of distended loops, with material stasis, forming a mass syndrome consistent with a reducible and unstable invagination coil. The diagnosis of acute intussusception was ultrasound. Surgery confirmed intussusception, which was secondary to the entrapment of a trichobezoid in the gastrointestinal lumen. Intestinal disinvagination and extraction of trichobezoid by gastrotomy was the indication. Results the operative consequences were simple. Conclusion: Trichobezoid is a rare condition and the preoperative diagnosis difficult when the notion of trichophagia has not been mentioned. Its treatment is surgical, its prevention requires regular monitoring and psychiatric care.

**Keywords:** Intussusception, Trichobezoid, Surgery

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## 1. Introduction

A bezoar is an indigestible conglomerate trapped in the gastrointestinal tract. This non-digestible mass can be formed by a variety of materials ingested intentionally or accidentally [1]. There are four different types named after the material they are made of: trichobezoar resulting from ingestion of hair; phytobezoar made from vegetables and indigestible fruit fibers; the lacto-bezoar which is formed from curds and the pharmaco-bezoar caused by drugs [2, 3].

Bezoars of the gastrointestinal tract are a relatively rare entity, with varying incidence among studies [4]. Trichobezoars occur mostly in psychiatric disorders, such as trichotillomania and trichophagia. They are more common in young women and are frequently located in the stomach with possible extension to the ileocolic junction; Phytobezoars are the most common type, usually affecting the narrowest part of the small intestine resulting in obstruction of the intestine by impaction. Although the majority of bezoars are found in the stomach, they sometimes travel from the stomach to the small intestine causing intestinal obstruction which is the most common complication of gastrointestinal bezoars [2, 4, 5].

We report the exceptional case of a gastrointestinal trichobezoar revealed by acute intussusception.

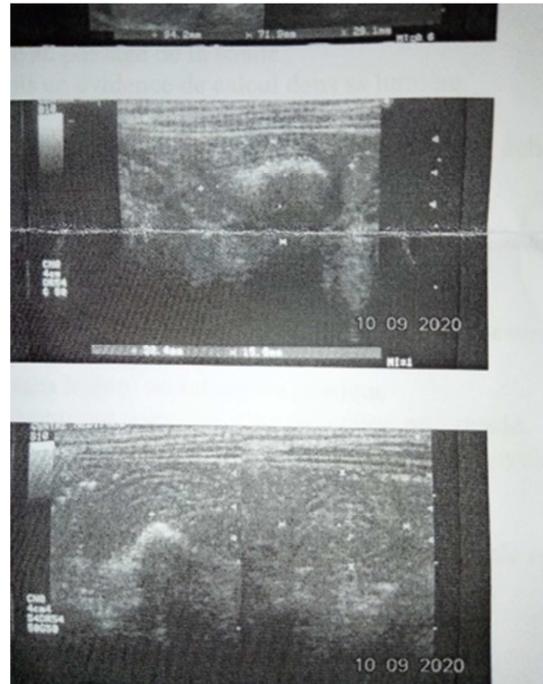
## 2. Methodology

It was about a seven-year-old girl, pupil, trichotillomaniac and trichophagus since the age of three according to the parents. She was seen in our department for progressive, paroxysmal diffuse abdominal pain, accompanied by vomiting of food and then scant fluid, anorexia and physical asthenia, progressing for four months. It should be noted that it was after several unsuccessful consultations in private care practices and then at the nutritional institute of the Donka National Hospital that she was referred to our department. Abdominal ultrasound showed significant images of distended loops, with material stasis, forming a mass syndrome measured at 22mm x 21mm compatible with a reducible and unstable intussusception coil (Figure 1) thus suggesting the diagnosis of intussusception. On examination, she was a lucid patient, writhing in pain who was in altered general condition resulting in weight loss, lazy abdominal skin folds, dry mouth and sunken eyeballs. The symmetrical and supple abdomen was the site of an epigastric mass, regular, mobile, poorly limited and painful on palpation. Intestinal peristalsis was exaggerated. The digital rectal examination noted an emptiness of the rectal bulb. The biological assessment showed hyperleukocytosis at 11.8 giga/l; normochromic-normocytic anemia at 10 g/l with a hematocrit level of 35%; a creatinemia of 76 ummol/l; transaminases: AST at 28IU/l; ALAT at 39IU/l; a blood sugar level of 4.81 mmol/l; negative Aghbs/SRV serology; a blood group and Rhesus factor = O +.

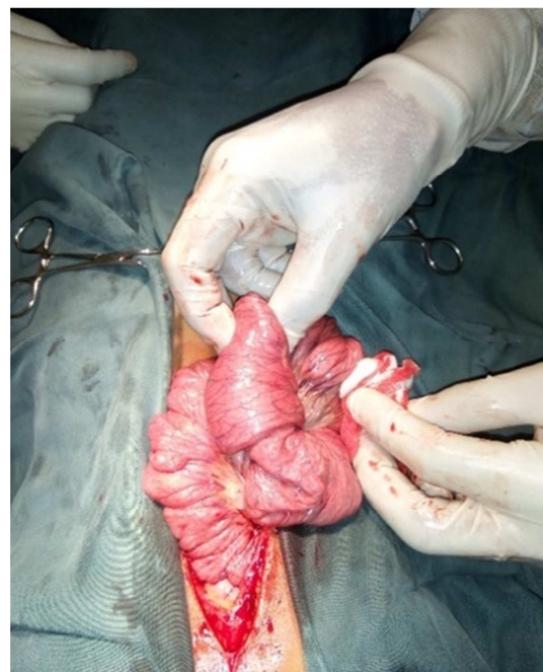
Surgery was the indication. It is performed after conditioning under general anesthesia and orotracheal intubation. Exploration revealed ileal intussusception in

gastrointestinal trichobezoar (Figures 2, 3). Disinvagination and trichobezoar extraction gastrotomy (Figures 4, 5) were our attitude. The operative part (Figure 6) consisted of hair, food outlets and charcoal. The operative consequences were simple. We referred the patient to the child psychiatrist for treatment.

## 3. Results



**Figure 1.** Abdominal ultrasound showing a cockade image with a hyperechoic center (intussusception).



**Figure 2.** Iléo- iléale invagination.



*Figure 3. Gastrointestinal trichobezoar.*



*Figure 4. Gastrotomy;*



*Figure 5. Extraction of trichobezoar.*



*Figure 6. Operative part of the trichobezoar (length = 1m).*

## 4. Discussion

The term bezoar corresponds to the concretion of various substances in the gastrointestinal tract. Their clinical characteristics were described by DE BAKEY and OCHSNER in their classic review on the subject in 1938 [6]. Trichobezoars have a predominantly gastric location with, in some cases, a proximal duodenal or jejunal extension defining Rapunzel syndrome. More rarely, there may be a double localization, both gastric and intestinal. The clinical symptoms are progressive and may include a mobile epigastric mass, pain, nausea, vomiting, anorexia or physical asthenia [5, 7]. In our patient, the localization was twofold (gastrointestinal). The clinical symptomatology was progressive, producing an occlusive syndrome with abdominal pain, vomiting, anorexia and physical asthenia. The mass was epigastric and mobile.

In current practice and in front of an occlusive syndrome, ultrasound is performed as a second intension especially in children and young adults without overweight in particular, in search of an intussusception or acute appendicitis [4]. In our case, it was performed as a first-line treatment and contributed to the diagnosis of intussusception.

Complications of intragastric trichobezoar are common and can occur at any time during their course. They can be traumatic, represented by gastric and duodenal ulcers, which present the same progressive risk as chronic ulcers, with the possibility of hemorrhage and perforation. The migration of the trichobezoar in the digestive tract produces an ileus with the possibility of acute obstruction of the small intestine. Complications of the bile ducts are linked either to a mechanical obstruction of the lower bile duct or to an intra-ductal extension. Gastric dilations and volvulus are rarely observed. Other complications have been reported in the literature, but their mechanism is discussed, such as exudative enteropathies, megaloblastic anemias as well as the presence of gastric polyps [5, 6]. Our patient presented with acute intussusception as a complication revealing trichobezoar.

Serious psychological disorders are rarely found in these patients, trichophagia is compared to onychophagia or other tics, it is also observed in cases of hospitalization [5, 7, 8]. Our

patient has been known for 4 years as a trichotillomaniac and trichophagus.

The treatment can be done by enzymatic dissolution (with cellulase, acetylcysteine, papain, sodium bicarbonate and especially the instillation of 3000 ml of Coca-Cola described by Ladas in 2002.), endoscopic extraction or surgery. The surgical treatment is done by enterotomy in case of intestinal trichobezoar and by gastrotomy in case of gastric trichobezoar. Regardless of the site of the obstruction, a careful search for other bezoars is necessary [2, 5, 7, 8]. Our patient underwent a surgical treatment which consisted of ileo-ileal disinvagination and gastrotomy which allowed the extraction of the gastric trichobezoar and its intestinal extension.

To prevent recurrence after surgery, psychotherapy is necessary [9-13]. In our case, the patient was referred to the child psychiatrist for psychiatric treatment.

## 5. Conclusion

Trichobezoar is a rare condition, the preoperative diagnosis of which is difficult when the notion of trichophagia and trichotillomania have not been mentioned. Its most effective treatment is surgical and its prevention requires regular monitoring and psychiatric care.

## Conflicts of Interest

The authors declare that they have no competing interests.

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