

## Gastric trichobezoar: a case report

### ABSTRACT

Trichobezoar is a foreign body in the digestive tract, made up of hair and fibers. Rarely encountered, and usually occurring in adolescent girls with a proven psychiatric history, it is often strictly gastric in location. We report the case of a 21-year-old breast-feeding patient with a poorly elucidated psychiatric history, who unconsciously consumed her own hair for two years. Upper digestive endoscopy was sufficient to make a positive diagnosis. Treatment was surgical, and the post-operative course was straightforward.

We therefore strongly recommend oesogastroduodenal fibroscopy in the management of identical forms. However, supportive psychotherapy after surgical treatment should be the rule.

**Keywords:** *Trichobezoar-endoscopy-surgery-psychotherapy*

### INTRODUCTION

The trichobezoar is a foreign body present in the digestive tract, composed of hair and fibers.

In the vast majority of cases, it develops in the stomach, but can progress into the intestinal lumen often causing an obstruction.

Its diagnosis is mainly based on upper digestive endoscopy and its treatment is essentially surgical. However, to clarify the extension, eliminate the existence of other synchronous localizations and look for complications, CT may be suggested.

### CASE PRESENTATION

We report the case of a 21-year-old breastfeeding woman with a very poor psychiatric history who was admitted to the visceral surgery emergency department of the Ibn Sina hospital in Rabat because of epigastralgia, epigastric heaviness, early postprandial vomiting, deterioration of her general condition and plaques of alopecia.

Her history dates back two years when, after conceiving a pregnancy, the patient began to eat her own hair, unconsciously she said, and this up to two years after giving birth. Her husband said that he had noticed a progressive weight loss in his wife, which he associated with pregnancy and breastfeeding, but had never known that his wife was eating her own hair. The husband decided to accompany his wife to the hospital because of these signs. An esophagogastroduodenal fibroscopy (FOGD) performed externally revealed a trichobezoar consisting of human hair, which occupied the entire gastric lumen up to two thirds of the pylorus, leaving a small passage to the duodenum. Given the impossibility of endoscopic extraction, the patient was referred to our department for better care. A preoperative assessment was performed and showed a haemoglobin level of 10.5g/dl, mild hyponatremia and hypokalemia, hypoalbuminemia at 2.5g/dl.

After conditioning and correction of the hydroelectrolyte disturbances, the patient was presented to the UCV staff where it was decided to perform a gastrotomy for bezoar extraction without further imaging. The patient was scheduled and a gastrotomy with removal of the trichobezoar was performed.



**Fig 1:** Image of intraoperative gastrotomy



**Fig 2:** Image of the surgical piece made of human hair (those of the patient)

The postoperative course was straightforward, with a gradual resumption of diet and the administration of a proton pump inhibitor, an antibiotic and an antispasmodic. Gradual weight gain was observed after three months.

A psychiatric consultation was scheduled after the wound had healed.

## DISCUSSION

According to the data in the literature, the trichobezoar is often discovered in young children or even in adolescents and especially in young girls [1; 2; 3; 4; 5; 6; 7].

Trichophagia and trichotillomania since childhood are frequently mentioned [8; 9; 10; 11]. The first case of trichobezoar was published in 1779 [12,13] and they represents 55% of all bezoars. It is made of hair, hair material or carpet fibers of variable size, most often intertwined in the gastric lumen. It can sometimes be prolonged in the duodenum, the jejunum and even beyond. It is known as "Rapunzel Syndrome" [14].

In our study, it is a 21-year-old nursing lady who presented with nutritional disorientation from the beginning of her pregnancy until one year after childbirth, by sneakily and unconsciously consuming her own hair.

The factors favoring the appearance of other bezoars are diverse: gastric emptying disorders, loss of normal motor functions of the pylorus, post-partial gastrectomy, high fiber diet, gastric antisecretory, absence of teeth, tachyphagia [18]. The factors of the trichobezoar are different, particularly psychological: trichotillomania, trichophagia, depression, mental retardation or behavioral disorders [15-16; 17, 18,19].

We report the same observation in our case, in whom a well-conducted interview enabled us to link the cause of trichophagia to a psychological antecedent, which was not admitted by the patient until after the completion of the esogastroduodenal fibroscopy.

At an early stage, nonspecific digestive signs (pain, nausea, vomiting, foul breath and early satiety) may be associated with weight loss, bald patches, eating disorders or anemia [17, 20].

Our study identified almost all the signs listed by these authors [17, 20]. These signs were made up of epigastralgia, early satiety, vomiting, weight loss and alopecia patches.

Biologically, there may be anemia, hydroelectrolytic disorders, hypoalbuminemia as observed in our patient, hyperleukocytosis [2,7].

The esophagogastroduodenal fibroscopy remains the reference paraclinical examination, which can have an immediate diagnostic and therapeutic interest by allowing the endoscopic extraction of small gastric trichobezoars [17].

Unlike our case, gastroesophageal fibroscopy, although sufficient for the diagnosis, did not allow removal of the trichobezoar; because the volume of the piece was larger than the overlying digestive tract.

Abdominal ultrasound only allows the diagnosis to be made in 25% of cases, by visualizing a superficial, hyperechoic, curvilinear band with a clear posterior cone of shadow [20]. The esogastroduodenal transit demonstrates a gastric intraluminal lacuna, mobile, with convex edges, which may have an extension into the duodenum [4]. The transit of the small intestine completes the exploration of the intestine in search of a continuous distal extension or detached fragments [4]. The abdominal CT scan may show a mass of variable volume, heterogeneous, occupying almost the entire gastric lumen and consisting of multiple concentric circles of different densities distributed in onion bulbs. Two pathognomonic and constant signs are the presence of tiny air bubbles scattered within the mass and the absence of any attachment to the gastric wall [20].

Contrary to these authors [4,20], we did not consider it necessary to carry out other examinations for the simple reason that the FOGD allowed the positive diagnosis; which was also the main motivation to make this case a scientific publication, to highlight the value of FOGD in the positive diagnosis of trichobezoar.

We performed a surgical treatment with a transverse gastrotomy and extraction of the piece. This corroborates with the idea reported by Mountassir M. et al. [2] who states that the treatment is usually surgical, and the evolution remains good.

Early diagnosis coupled with rapid surgical management after well-conducted exploration always leads to a simple post-operative follow-up [2]. This other assertion by Mountassir M. et al. goes in the same direction as our observation in the management of this pathology with a simple post-operative follow-up for our patient.

## **CONCLUSION**

The trichobezoar appears as a pathological curiosity, because of its particular nature. Endoscopy may, for localized forms, be sufficient to make a positive diagnosis. The treatment is surgical. Supportive psychotherapy is an important step for better follow-up and should in no way be underestimated.

## **Ethical Approval:**

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

## Consent

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

## REFERENCES

- 1- Ezziti M, Haddad F, Tahiri M, Hliwa W, Bellabah A, Badre W, Haddouch R, El Hattbi K, Elfriyekh MR, Fadil A. Trichobézoard gastrique: à propos d'un cas [Gastric trichobezoar: about a case]. Pan Afr Med J. 2017 Feb 20;26:74.
- 2- Mountassir Moujahid, Tarik Ziadi, Issam Ennafae, Hicham Kechna, Omar Ouzzad, Sifeddine El Kandry. Pan Afr Med J. 2011; 9: 19. French. Publication en ligne 2011 juin 17. DOI : 10.4314/pamj.v9i1.71194
- 3- De Bakey M, Oschner A. Bezoars and concretions : a comprehensive review of literature with an analysis of 303 collected cases and a presentation of additional cases. Surgery 1939 ; 5 : 132-160.
- 4- Grewal RS : Tricobezoar : review of littérature and case report. Int surg1967 ; 48 : 196-200.
- 5- O 'Sullivan MJ, McGreal G, Walsh JG, Redmond HP. Tricobezoar. JR Soc Med 2001 ; 94 : 68-70.
- 6- Mazine K, Barsotti P, Elbouhaddouti H, Mouaqit O, Benjelloun E, Taleb KA, Ousadden A. Trichobézoard gastroduodénal: à propos d'un cas [Gastroduodenal trichobezoar: about a case]. Pan Afr Med J. 2018 May 15;30:25. French. doi: 10.11604/pamj.2018.30.25.12239. PMID: 30167052; PMCID: PMC6110540.
- 7- C. Lartigau-Roussin · C. Leroux-Madec · C. Vanhecke. Trichobezoar: an Infrequent Cause of Acute Abdominal Pain. Ann. Fr. Med. Urgence (2021) 11:120-122 . DOI 10.3166/afmu-2020-0296

- 8- Sharma NL, Sharma RC, Mahajan VK, Sharma RC, Chauhan D, Sharma AK. Tricotillomania and tricophagia leading to tricobezoar. J Derm 2000 ; 27 : 24-26.
- 9- Studzinski Z, Grzybowski Z. Giant tricobezoar in the stomach coexisting with pregnancy : a case report. Ginekologia Polska 1999 ; 70 : 830-834.
- 10- Bouwer C, Stein DJ. Trichobezoars in tricotillomania : case report and literature overview. Psychosomatic Med 1998 ; 60 : 658-660.
- 11- Wadlington WB, Rose M, Holcomb GW Jr. Complications of tricobezoar : a 30 year experience. Southern Med J 1992 ; 85 : 1020-1022.
- 12- Balik F, Ulman I, et al. The Rapunzel syndrome : a case report and a review of the literature. Eur.J.Pediatr.surg 1993 ; 3 :171-3.
- 13- Marcos Alonso S, Bravo Mata M and al. Trichobezoar as an atypical form of presentation of celiac disease. An pediater(Barc) 2005 ; 62(6) :601-2.
- 14- Mehta M, Patel RV. Intussusception and intestinal perforations caused by multiple trichobezoars. J pediatr Surg 1992 ; 27 :1234-5.
- 15- Parekh VB, Khaja Met al. Case report : Trichobezoar in 25 year old autistic female. New York Medical Journal.
- 16- L'aarje A, Elhattahi K, Lefryekh R, et al. Trichobézoard gastroduodénal et grélique. Presse Med 2016 ; 45 :265-9.
- 17- Roche C, Guye E, Coinde E, Galambrun C, Glastre C, Halabi M et al. Trichobézoard : à propos de 5 observations. Arch Pediatr. 2005 Nov ; 12(11) :1608-12. Epub 2005 sep 27. PubMed | Google Scholar
- 18- DeBakey M, Ochsner A. Bezoars and concretions : comprehensive review of the literature with analysis of 303 cases and presentation of eight additional cases. Surgery. 1938 ; 4 :934-63 (continued in surgery. 1939 ; 5 : 132-210). Google Scholar
- 19- El Gamrani Y, Oubaha S, Gharaba S, Samlani Z, Krati K. Une volumineuse mase épigastrique. Rev Med Interne 2014 ; 35 :556-7.
- 20- Hafsa C, Golli M, Mekki M, et al. Trichobézoard géant chez l'enfant. Place de l'échographie et du transit oesogastroduodénal. J Pediatr Pueric 2005 ; 18 : 28-32.