

# Hair-Cotton Threads Bezoar in Two Years Child

Priyanka Sethi and Shobha Ujawal

## ABSTRACT

We report a case of 2 years old male child who presented with acute intestinal obstruction with palpable and mobile mass in the abdomen. He was diagnosed as a case of intestinal obstruction due to phytobezoar containing cotton threads. Surgical intervention is the treatment of choice for such conditions. Small bowel obstruction due to bezoar made of hair cotton threads is extremely rare. These cases are rarely reported in paediatric age group.

**Key Words:** *Trichobezoar. Cotton threads. Intestinal obstruction. Child.*

## INTRODUCTION

Infants and children sometimes acquire habit of swallowing foreign materials which may lead to formation of bezoar which is a collection of indigestible material in the Gastrointestinal (GI) tract. It may also present as small bowel obstruction. This habit is more common in mentally disturbed or retarded children. Bezoar form around 2 - 4% of small bowel obstructions and as acute surgical emergency, it forms approximately 1% of the patients with bowel obstruction.<sup>1</sup>

Various foreign bodies as hairs, coins, button, safety pins and screws have been reported in GI tract.<sup>2,3</sup> Trichobezoar (bezoar made of hairs) usually occurs in patients with history of trichotillomania and a visible hair loss may be present in these patients.

We present a case of large bezoar containing bunch of ingested cotton threads in a 2 years old male child and very few cases have been reported in literature.

## CASE REPORT

A 2 years old male child presented in the emergency room with acute onset of colicky abdominal pain and non-bilious vomiting for last 3 days. Child was alert and of normal built. Abdominal examination revealed a non-tender smooth abdominal mass in the left upper quadrant emerging from beneath the left costal margin and extending over the midline. X-ray abdomen showed the presence of dilated bowel loops with air fluid levels suggestive of mechanical obstruction. Ultrasound showed a non-cystic mass and on abdominal Computed Tomography (CT) scan a well-defined obstructing, non-homogeneous abdominal mass was found.

An emergency exploration laparotomy under general anaesthesia with controlled ventilation was planned.

A large trichobezoar containing cotton threads was identified, causing the obstruction leading to perforation. A long tail of the bezoar was identified. When the small bowel was opened, bezoar appeared like a gastric bezoar with a long tail. It was removed along with excision of involved bowel segment followed by resection anastomosis (Figure 1). Abdomen was closed and child was extubated and shifted to post anaesthesia care unit. Postoperative recovery from anaesthesia was complete and uneventful. Patient was discharged after 10 days of operation along with advice of psychiatric evaluation. Psychiatric counselling was done. Child is doing well in follow-up.



Figure 1: Picture showing phyto-cotton thread bezoar and resected gut.

## DISCUSSION

In paediatric age group, trichobezoar containing cotton threads have been rarely reported. Baudament in 1779 first described bezoars as a human disease and later in 1883 Schonborn carried out first surgical removal in humans.<sup>4</sup> DeBakey and Ochsner concluded that in total cases of bezoars about 18% were found in the first decade, 37% during the second and 27% in the third. Gaston reported the first case of bezoar in a one-year-old infant.<sup>5</sup>

*Department of Anaesthesia and Critical Care, SNMC, Jodhpur, Rajasthan, India.*

*Correspondence: Dr. Priyanka Sethi, Department of Anaesthesia and Critical Care, SNMC, Jodhpur, Rajasthan, India.*

*E-mail: dr.priyanka\_sethi@yahoo.co.in*

*Received: March 08, 2014; Accepted: June 26, 2014.*

Chintamani *et al.* reported a case of bezoar of cotton threads in 35 years old lady.<sup>6</sup> Kadian *et al.*<sup>7</sup> also reported phytobezoar with cotton threads in a 4 years old child. If not recognized in time, the trichobezoar continues to grow in size and weight due to the continued ingestion of hair. This increases the risk of severe complications, such as gastric mucosal erosion, ulceration and even perforation of the stomach or the small intestine.

Ingested human hairs are resistant to digestion and absorption. They are also resistant to peristalsis due to smooth slippery texture. They get accumulated between mucosal folds of stomach and do not pass out of the gastro-intestinal tract easily. Over a period of time, continuous ingestion of hair leads to the impaction of hair together with mucus and food. They remain stuck in the folds of alimentary tract and usually form a mass in stomach (trichobezoar) which can extend through the pylorus into jejunum, ileum or even colon due to peristaltic propulsion. In 1968, Vaughan *et al.* first described this condition as Rapunzel syndrome.<sup>8</sup> Trichobezoar can also detach from main part in stomach and form a satellite in distal intestine.

Alopecia is very commonly present in these patients.<sup>9</sup> These patients may present as recurrent episodes of non-specific pain in abdomen, loss of appetite, vomiting and weight loss. Trichobezoar or its detached part through duodenum into intestine can also cause ulceration, total or partial obstruction, intestinal perforation, and peritonitis. If the size of trichobezoar is large it can reduce the blood supply to the mucosa of the stomach and part of the intestine which can cause ulceration followed by perforation.

This case was unusual due to the early age of child without any psychiatric history along with the previously un-reported mixture of human hair and cotton threads in the bezoar.

## REFERENCES

1. Salemis NS, Panagiotopoulos N, Sdoukos N, Niakas E. Acute surgical abdomen due to phyto-bezoar-induced ileal obstruction. *J Emerg Med* 2013; **44**:e21-3.
2. Hurwitz S, McAlenney PF. Trichobezoar in children: review of the literature and report of two cases. *AMA Am J Dis Child* 1951; **81**:753-61.
3. Burstein I, Steinberg R, Zer M. Small bowel obstruction and covered perforation in childhood caused by bizarre bezoars and foreign bodies. *Isr Med Assoc J* 2000; **2**:129-31.
4. Williams RS. The fascinating history of bezoars. *Med J Aust* 1986; **145**:613-4.
5. De Baakey M, Oschner A. Bezoars and concretions: a comprehensive review of the literature with an analysis of 303 collected cases and a presentation of 8 additional cases. *Surgery* 1938; **4**:934-63.
6. Chintamani, Durkhure R, Singh JP, Singhal V. Cotton Bezoar: a rare cause of intestinal obstruction: case report. *BMC Surg* 2003; **3**:5.
7. Kadian Y, Singla S, Rattan KN, Dhiraj Parihar. Primary small bowel phytobezoar in children: a report of two cases. *CIB Tech J Surg* 2012; **2**:4-8.
8. Naik S, Gupta V, Naik S, Rangole A, Chaudhary AK, Jain P, *et al.* Rapunzel syndrome reviewed and redefined. *Dig Surg* 2007; **24**:157-61.
9. Gorter RR, Kneepkens CM, Mattens EC, Aronson DC, Heij HA. Management of trichobezoar: case report and literature review. *Pediatr Surg Int* 2010; **26**:457-63.

