

Laparoscopic management of a huge trichobezoar in a teenage girl presenting with weight loss-a case report

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Abstract:

Introduction: Trichobezoar is a mass of swallowed hair accumulating in the stomach that is usually seen in young females with psychiatric illnesses.

Case Report: We report the case of a teenage female with a huge trichobezoar who presented with weight loss and was managed by laparoscopic removal. **Conclusion:** Laparoscopic approach for removal of large trichobezoars is a good alternative to open surgery with lesser post-operative complications and hospital stay.

Keywords: Trichobezoar, laparoscopy.

I. Introduction:

The word “bezoar” is derived from the Arabic word “Badzher” which means an antidote. It was believed that bezoars which were obtained from animals had curative properties and used to treat snake bites and intoxications (1). Currently bezoars are defined as an aggregation of foreign material in the intestinal tract, usually the stomach, although they may extend into the small intestine. Bezoars are classified in 4 categories: phytobezoars (vegetable matter); trichobezoars (hair balls); pharmacobezoars (tablets or semi-liquid masses; miscellaneous material (clay, stone etc.) (2). Trichobezoar is composed of a mass of swallowed hair (trichophagia). It is called Rapunzel Syndrome when it extends through the pylorus into the small bowel. They are the commonest type of human bezoars, more frequent in women (90%), typically in female patients younger than 30 years of age with psychiatric disorders

(1). They are treated by gastrotomy and retrieval via open surgery but nowadays they can be retrieved laparoscopically or endoscopically.

II. Case Report:

A 14 year old girl presented with history of weight loss over the last 2 years, about 8-9 kilos and vague abdominal pain. No history suggestive of gastric outlet obstruction or abdominal lump. She was a good academic achiever and played sports. There was no history suggestive of plucking of hair, hair loss or any psychiatric illness obtained from her parents. Abdomen examination revealed a firm lump in epigastrium extending 4 cm below xiphoid process. CT scan of abdomen revealed a large trichobezoar, without extension into small bowel, with contrast passing into jejunum (Image 1). Diagnosis was confirmed on gastroscopy. Parents were counselled about the disease and surgery was planned. Standard 10 mm umbilical port was inserted by open technique, 2 x 5 mm ports were inserted along left and right midclavicular lines in line with umbilical port. Grossly distended stomach was found on laparoscopy. Gastrotomy was done using Harmonic device and trichobezoar delivered into plastic bag en masse. 3 cm left hypochondriac transverse incision was taken and specimen delivered from the bag piecemeal, to avoid wound contamination, gastrotomy was closed in 2 layers laparoscopically (Images 2,3). The trichobezoar weighed about 1500g. Post-operatively patient developed low grade fever and gastroparesis on day 2, which resolved by day 4, when nasogastric tube was removed and liquids started. Patient was discharged on post-operative day 5. No surgical site infection developed and wound healed with minimal scarring. Patient underwent psychiatric evaluation post-operatively.

III. Discussion:

In patients of Trichophagia, swallowing of hair results in tight, growing hair balls which cause obstruction of stomach and sometimes intestine. The hair traps the viscous intestinal materials, i.e., mucin, blood which form aggregates that are not easy to remove (3). Additionally, the gastric churning helps to trap new swallowed hair into already formed trichobezoars making them grow to enormous proportions. Often, the patient remains asymptomatic for years, until the point of obstruction is reached

(4). They are easily diagnosed on radiological imaging, however, a gastroscopy is confirmative and helps to differentiate from other bezoars.

In the past, laparotomy and removal of trichobezoar was the treatment of choice (5). However, it was associated with increased risk of surgical site infection, delayed recovery and long hospital stay (5). Nowadays,

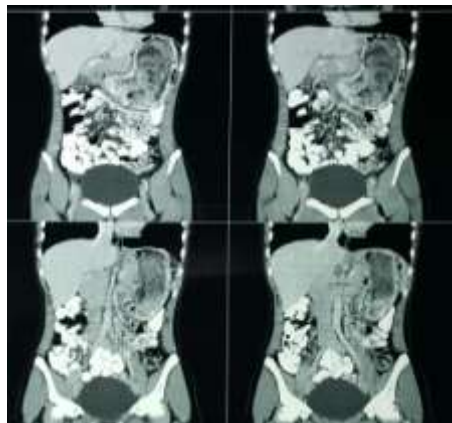
laparoscopic and endoscopic removal is possible depending on the size of the bezoars. Laparoscopy is feasible for large trichobezoars and is associated with small scars, shorter hospital stay and early recovery. However, it requires technical expertise and all efforts should be made to avoid spillage into the peritoneal cavity. Post-surgery, patient should undergo a thorough psychiatric evaluation to prevent recurrence (6).

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Images

1. CT abdomen showing trichobezoar with contrast going into jejunum



2. Trichobezoar seen on laparoscopic gastrotomy



3. Large specimen after piecemeal retrieval

