

Case Report

Trichobezoar with Gastric Ulcer Perforation - A Case Report

Majid Ali Gamal Hassan¹, Vinod K Grover¹, Humad Sameer²

¹Department of Surgery and ²Department of Radiology, Al-Jahra Hospital, Kuwait

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ABSTRACT

Trichobezoar is the commonest foreign body of the gastrointestinal tract. Herein, we describe a twenty-year old mentally subnormal woman who presented with abdominal pain, vomiting and shock. Barium

meal study and gastroscopy revealed a perforated gastric ulcer and a large trichobezoar. Laparotomy was done, the trichobezoar extracted and the perforation sutured.

KEYWORDS: acute abdomen, mentally subnormal, perforated gastric ulcer, trichobezoar

INTRODUCTION

Trichobezoar, a variant of bezoars that also include phytobezoar, lactobezoar and disopyrobesoar, is the most common foreign bodies of the gastrointestinal tract^[1]. The first report of trichobezoar was published in 1779^[2]. Ultrasound of the abdomen, barium meal studies and gastroscopy are used in the diagnosis of trichobezoars. Schonborn carried out the first successful surgical removal in 1883^[3].

CASE REPORT

A twenty-year old mentally subnormal female patient was brought to the casualty department complaining of vomiting and upper abdominal pain of two weeks' duration. There was no history of fever or weight loss.

On examination she was pale, severely dehydrated and in shock. Her blood pressure was 60/40 mm Hg, pulse 130 per minute, temperature 37.8 °C and CVP 3 cm H₂O. Her upper abdomen was distended and a firm tender mass was felt in the epigastrium. She was initially treated with I.V. fluids.

INVESTIGATIONS AND MANAGEMENT

Hemoglobin: 8.2g/dL (MCV 76 fL), WBC: 12.1 x 10⁹/L. Blood urea and serum electrolytes were normal. Her albumin was 22 gm/L. Plain abdomen X-ray showed prominent gastric outline with amorphous material within the stomach. Ultrasound of the abdomen showed large intragastric mass with acoustic shadows. A barium meal study confirmed intragastric mass, which contained trapped air and contrast material, extending to the second part of the duodenum (Fig. 1a & 1b). A diagnosis of trichobezoar was made. A more detailed history to

elucidate trichotillomania with trichophagia was negative and no alopecia was found on examination. The patient was referred for gastroscopy, which confirmed the presence of a large trichobezoar in the stomach extending from the cardia to the second part of the duodenum (Fig. 2). There was a deep ulcer on the gastric incisura. The trichobezoar was too large to be removed in one piece and attempts to break it failed. Surgery was advised.

At laparotomy the stomach was found to be adherent to the under surface of the liver. On dissecting the stomach from the liver a sealed off abscess was found in relation to the lesser curvature of the stomach due to the perforation of the gastric ulcer. Anterior gastrotomy was done and a huge trichobezoar occupying most of the stomach and extending to the second part of the duodenum was extracted (Fig. 3). The pus was removed and excision of the gastric ulcer was done. Both the gastrotomy and the ulcer area were sutured in two layers. The rest of the bowel was normal. Postoperative period was uneventful except for mild superficial wound infection, which was treated by daily dressings.

The patient was referred to the psychiatrist for long-term management.

DISCUSSION

Trichobezoars are gastrointestinal masses formed from the accumulation of ingested hair. They grow slowly over many years and form a cast in the shape of the stomach and sometimes extend to the small bowel^[4]. DeBaKey and Ochsner reviewed 172 cases of trichobezoar of which 90% were females in the 10 to 19 years age group^[5,6]. Trichobezoars are generally seen in emotionally

Address correspondence to:

Dr. Majid Ali Gamal Eldin Hassan, Dept. of Surgery, Al-Jahra Hospital, Jahra, Kuwait. Tel. (965) 4575300 ext. 5252, Fax. (965) 4576805

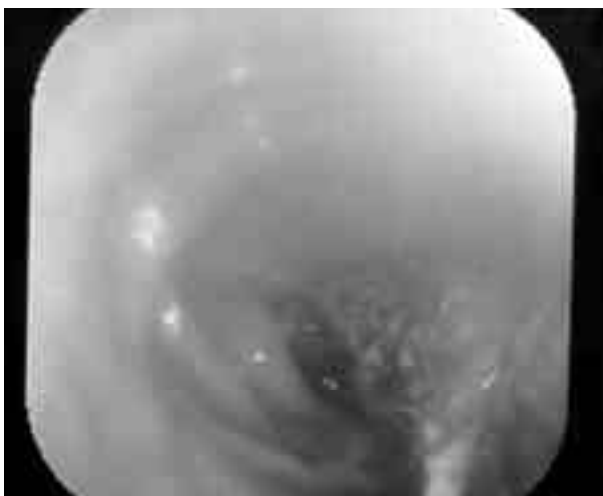


Fig 2: Endoscopic photograph showing gastric trichobezoar.

disturbed patients^[7]. The hairs swallowed are trapped in the gastric mucosal folds and become enmeshed due to insufficient friction surface necessary for forward propulsion by peristalsis. The ingested hairs always become black due to the denaturation of hair proteins by the gastric acid^[8].

The symptoms of gastric trichobezoars depend on the stage of its formation and the length of the time it is present. In the beginning, the symptoms are vague, non-specific and develop gradually^[6]. The usual symptoms are epigastric pain, nausea, vomiting, weight loss, anemia, diarrhea or



Fig 1a-b: Barium meal follow through showing dilated stomach with irregular filling defect, which extends to the duodenum



Fig 3: Gastric trichobezoar with its tail.

constipation. A large firm mass may be palpable in the epigastrium. The continuous growth of trichobezoars can cause pressure necrosis with resultant mucosal erosions and ulcerations, found most commonly along the lesser curvature, and have been reported in 10% of the patients^[7]. Subphrenic abscess formation has been described in only two cases^[9]. The gastric trichobezoar and its tail may rarely extend through the entire length of the small intestine, the so-called Rapunzel syndrome and was first described by Vaughan *et al* in 1968^[10]. Only nine cases were reported till 1998^[11]. Iron deficiency is the most common laboratory finding^[12]. Imaging of gastric bezoars is characteristic and the diagnosis can often be made on conventional radiography and barium meal study^[13]. When an abdominal mass is palpable, ultrasound is usually done first. The clear intense acoustic shadowing behind an anterior band of increased echogenicity on ultrasound distinguishes this lesion from a stomach filled with gas and food that produces "dirty" shadowing^[14]. CT scan and

magnetic resonance are rarely required. The modalities have been used for evaluation of potential complications and in a few cases with obscure clinical presentation^[9].

Small trichobezoars can be retrieved by endoscopy or dismantled by water jet, injecting cellulose, a drill device, a tripod forceps, polypectomy snare plus diathermy, a dormia basket, a mechanical lithotripter or Nd:YAG laser^[1]. The treatment of choice for trichobezoar is surgical^[4].

During the last ten years large trichobezoars have been removed laparoscopically. This procedure is time consuming, tedious, and inspection of the small intestine for broken hairballs that can cause obstruction, is not possible^[15].

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