Answers to Medical Quiz

A1. The immediate measures are:

- Keep patient nil by mouth and on cardiac monitor.
- Start IV fluids to replace the lost fluid and the amount needed for maintenance and correction of electrolytes imbalance and alkalosis.
- Insert a nasogastric tube to rest the GIT and this will help to confirm the diagnosis by finding undigested fermented food.
- Insert a urinary catheter to measure the urinary output and this would help in deciding the fluids needed by the patient.

A2. The diagnostic tool is Gastroscopy:
It showed a hugely dilated stomach with a mobile 25x15 cm hard blackish-greenish structure in the stomach which was intermittently blocking the pylorus and causing pyloric outlet obstruction "Bezoar". It could not be broken endoscopicaly.

A3. The most probable diagnosis is intermittent pyloric outlet obstruction by the Bezoar for the last 6/12 months which became worse. Similar clinical picture was reported in cases of post gastric surgeries.

A4. The options are:

- Endoscopic trial of breaking the Bezoars into pieces, which either can pass distally or brought out proximally by the scope. This option was not possible in this patient as the Bezoar was big in size and hard to break.
- Laparoscopy or laparotomy, followed by gastrostomy and extraction of the Bezoar, this achieved was successfully in our patient. The obstruction was relieved and the patient started feeding within couple of days.

DISCUSSION

Bezoars are conglomerates of foreign material or indigestible organic substances in the alimentary tract of humans. Various types of Bezoars have been described. Trichobezoar mainly consists of hair, seen mostly in young people with normal gastrointestinal tract and usually results from underlying behavioral disorders and mental retardation. Another type is phytobezoar, usually formed from indigestible food mainly composed of vegetable matter (such as tomato skin, orange or melon seeds, etc), rare in healthy people and mainly it develops in person with predisposing factors[1].

Among the predisposing factors altered gastrointestinal anatomy from previous surgery or an abnormal gastric motility, patients with co morbid illnesses such as diabetes, patients with end stage renal disease on dialysis or patients on mechanical ventilation have an increased risk of Bezoar formation. In one article, phytobezoar occurred as a complication of gastric carcinoma which is very rare[2]. Another article diagnosed Bezoar in a patient receiving Nifedipine as anti hypertensive drug.

Many patients remain asymptomatic for many years and develop symptoms insidiously. The common complaints include abdominal pain, nausea, vomiting, early satiety, anorexia, bloating, and weight loss. Complications include gastric ulceration secondary to pressure necrosis, gastrointestinal bleeding, gastric outlet obstruction and intestinal obstruction. Iron deficiency and megaloblastic anemia have also been reported[2].

The Rapunzel syndrome (Trichobezoar with a long tail extending from the stomach to the small bowel) is an uncommon disease. It can cause small bowel obstruction, jaundice or even acute pancreatitis[3]. Our case had another Bezoar in the terminal ileum causing small bowel obstruction. The Bezoar needed milking up towards the gastrostomy and removing it at the same operative session.

DeBakey and Ochsner reviewed 172 cases of trichobezoar of which 90% were females in the 10 to 19 years age group and they noted that a palpable abdominal mass was present in 87.7%[3].

Diagnosis may be aided by abdominal plain films, contrast upper gastrointestinal radiography, ultrasound, CT scan, or upper endoscopy[1,3]. In our case the diagnosis was clinically suspected, confirmed endoscopically but trial for non invasive removal failed and surgery was needed.

Small Bezoars may be amenable to nasogastric lavage or suction, clear liquid diet and the use of prokinetic agents[1,4]. Most trichobezoars are large require surgery either laparoscopically or by laparotomy[1,3]. The standard treatment is a gastrotomy and extraction of the Bezoar.

Although surgery addresses the immediate issue, psychiatric follow-up is essential to prevent recurrences in otherwise healthy people[1,3].

Bezoars require a high index of suspicion and should be considered in the differential diagnosis of asymptomatic epigastric swellings in young patients with psychiatric illness or in patients with history of gastric surgery or gastropathy.[1] A detailed evaluation to exclude possibilities of any underlying disease including malignancy is also necessary in patients who develop Bezoars without any predisposing factors[2].

REFERENCES

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