ACUPHAGIA AS A CAUSE OF GASTRIC BEZOAR CAUSING GASTRIC OUTLET OBSTRUCTION

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ABSTRACT
Acuphagia, the compulsive ingestion of sharp objects is a rare form of Pica. A 25 years old female presented in Outpatient Department with complaints of persistent pain in epigastrium and melena for one month. Initially treated for gastritis, she failed to respond to the therapy. Her upper Gastrointestinal (GI) endoscopy was planned which showed a mass of needles and blades in the fundus of stomach. An attempt was made for endoscopic removal but this was not possible without damaging the esophagus. On inquiring again she gave a history of ingestion of metallic pins and blades after a fight with her husband. She was admitted with a diagnosis of acuphagia. She underwent a formal laparotomy with anterior gastrostomy. A total of 40 shaving blades and 508 sewing machine needles were recovered. Her postoperative recovery was uneventful. Upon discharged, she was referred to Department of Psychiatry for evaluation and treatment.

Key Words: Acuphagia, Pica, Ingestion of metallic objects, Gastric bezoar.

INTRODUCTION
Pica is defined by the American Psychiatric Association as persistent eating of non-nutritive substances that is inappropriate to developmental level, occurs outside culturally sanctioned practice and, if observed during the course of another mental disorder, is sufficiently severe to warrant independent attention and must have occurred for at least one month.1

Pica may be benign, or it may have life-threatening consequences. The term pica comes from the Latin word meaning magpie, a bird which shows an indiscriminate preference for foods and non-foods.

It is a worldwide problem that has no barriers of age, race, gender or geography. Although more common in children, cases have been reported in all age groups. This culturally and developmentally inappropriate condition is commonly associated with iron and zinc deficiency and is seen mostly in children with a strong family history. In adults, it is commonly associated with pregnancy and may also occur in context to other illnesses such as autism, mental retardation, and schizophrenia.2 Successful approaches to treatment are behavioral treatment and treatment of the underlying cause like psychosis.2

Timely recognition of the condition and appropriate treatment can avoid complications such as obstruction or perforation.

CASE REPORT
A 25 years old married female, presented in outpatient department with complaints of pain in epigastrium for the last one month. Pain was associated with vomiting and melena. She also gave a feeling of fullness in the epigastrium whenever she eats.

She had been married for 8 years and had 3 children (2 daughters and one son). She managed a stitching school. Her husband was an intravenous drug abuser and that made her the lone bread earner of the family. On inquiring, she admitted to having conflicts with her husband with a recent exacerbation.

On examination, she was a young lady of average built and height lying comfortably in bed. She was markedly pale. Abdominal and chest examination was unremarkable. On the basis of history and examination, provisional diagnosis of gastritis and GERD was made. She was discharged with medications for gastritis but her symptoms did not settle.

An upper gastrointestinal (GI) endoscopy was planned which showed mild gastritis in the fundus of stomach and a mass of needles and some blades were found in the stomach. A few of those needles were removed endoscopically but others were stuck in the stomach wall and could not be removed without damaging it.

On enquiring, she finally admitted to having ingested these metallic foreign bodies. Every time she had a fight with her husband she would ingest needles from her sewing machine or any blade she could get her hands on. A psychiatric evaluation was carried out and she was diagnosed as a case of Major Depressive Disorder with suicidal tendency.

Patient was admitted with a diagnosis of acuphagia and further investigations were carried out. On erect X-ray
abdomen, there was a dense mass in the region of the fundus (Figure 1). CT scan abdomen showed a mass of metallic objects present in the stomach and causing obstruction of the gastric outlet (Figure 2). There were also a few scattered needles in the duodenum and mesentery of the small bowel.

A midline laparotomy was done. An anterior gastrotomy was made. Forty pieces of shaving blades and 508 sewing machine needles were recovered from lumen of stomach (Figure 3). Two needles were removed from the duodenum. One needle in the lesser sac and one in jejunal mesentery were deeply stuck and could not be removed. No evidence of any perforation was found.

Postoperative recovery of the patient was unremarkable. She was allowed orally on 3rd postoperative day and was discharged on the 7th postoperative day. She underwent multiple counselling sessions at the department of psychiatry before she was sent home.

Currently, she is under regular follow-up with the Department of Psychiatry and the Department of Surgery. Her recovery has been uneventful and she has returned to her routine work.

**DISCUSSION**

The deliberate ingestion of foreign bodies is a comparatively rare psychopathological behavior. Most of the foreign body ingestions occur in pediatric population with peak incidence between 6 months to 6 years. Both genders are equally affected. In children, it can occur in regressive states due to developmental disturbances. Among adolescents and young adults, it may be interpreted as self-injuring or suicidal behavior or associated with eating disorders. Swallowing foreign objects can also present as Munchausen’s syndrome or as an act of malingerering, especially in those seeking secondary gain with access to medical facility. The latter is particularly applicable to prisoners with the motives to leave prison.

Acuphagia is a rare form of pica where one has the strong urge to ingest metallic objects. These metallic objects range from small pins and needles to blades and even magnets. This patient presents a particularly striking example of foreign body ingestion. Her low socio-economic status and repeated fights with her husband who was a drug abuser; were a strong reason for her to develop this rare disorder.

Eighty percent of ingested foreign bodies that reach the stomach will pass uneventfully through the gastrointestinal tract. Ten to 20% will require non-operative intervention and 1% or less (mainly long sharp metal objects) will require surgery because of obstruction, perforation, or hemorrhage. Pre-existing intestinal disease such as ileal stricture due to Crohn’s disease or tuberculosis increases the risks of such complications.

Mortality following foreign body ingestion is reported to be extremely low. Impaction, perforation, or obstruction occurs at areas of physiologic narrowing or acute angulations such as the cricopharyngeal sphincter or ileocecal valve. Once a foreign body, even sharp-pointed ones, has entered the stomach, it will most likely pass through the alimentary tract uneventfully. Ingestion of blunt objects usually requires outpatient follow-up. Most objects are passed within 4 to 6 days though some may take even 4 weeks. Blunt objects that fail to pass the stomach within 3 to 4 weeks or remain static beyond the stomach for more than one week, need to be removed. This implies failure of medical therapy and is likely to be associated with complications.

Non-pharmacological (supportive psycho-therapy, cognitive behavioral therapy) and pharmacologic psychiatric management as indicated should be essential parts of treatment protocol. This patient also went a thorough psychiatric evaluation and was diagnosed as a case of major depressive disorder with suicidal tendency. She is under treatment and regular follow-up with department of psychiatry for her problems and to date hasn’t had an urge to repeat this act. She has gone back to her work and is leading a healthy life.

**REFERENCES**