Medical Image of the Week: Phytobezoar

Figure 1. Supine portable abdominal radiograph. Note the massively distended stomach, outlined by the arrows, with an internal mottled appearance. There is inferior displacement of the transverse colon (arrowhead) contouring to the greater curvature of the stomach.

A 10-year-old boy with a history of non-verbal autism presented to the hospital with symptoms of chronic malnourishment. He was recently started on a specific

carbohydrate rich diet, as outlined by a popular mainstream nutrition book, with hopes of improvement in adverse behavior. Prior to the start of this new diet, he consistently demonstrated an increased craving for food and was described to have an insatiable appetite. Though he was relatively non-verbal at baseline, he intermittently voiced his hunger and associated abdominal pain.

A supine abdominal radiograph obtained immediately after admission showed a moderate gastric distension with a significant stool burden. Follow-up radiographs of the abdomen were obtained after two days of medical attempts to clear out the gastrointestinal system. The supine frontal radiograph at this time showed a massively distended stomach with a mottled appearance and considerable mass effect on the transverse colon (Figure 1). The interpreting pediatric radiologist immediately raised a diagnosis of gastric bezoar, which was later confirmed intra-operatively. Initially, an endoscopic approach was tried in an attempt to evacuate the stomach. However, considering the tremendous compaction of the phytobezoar, laparotomy was performed. After confirmation of normal gastric anatomy, several liters of vegetable material were removed from the stomach, and the gastrotomy was closed.

Gastric bezoar is defined as a gastric foreign body resulting from accumulation of ingested material, often found as a hard mass or concretions within the stomach (1). Bezoars are classified according to the contents; phytobezoars contain vegetable materials, whereas trichobezoars contains hair (2). Bezoars usually form in the stomach and can pass into the small bowel where they occasionally cause obstruction. Characteristic radiographic findings can point to the diagnosis of bezoar on plain film radiographs while barium studies are often confirmatory. Many interventions have been described for the treatment of phytobezoars from carbonated nasogastric lavages to endoscopic retrieval (3). However, in severe cases, a surgical approach is necessary in order to prevent further complications.

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References

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