Sunflower seed rectal bezoar in an adult
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There are 5 reported cases of sunflower seed rectal bezoar,1-3 all involving children aged 5 to 11 years old. This is the first reported case of an adult with severe, painful constipation caused by sunflower seed rectal bezoar.

CASE REPORT

A 61-year-old man with a history of mild mental retardation, seizure disorder, type 2 diabetes mellitus, and benign prostatic hyperplasia, presented to his primary care doctor with a 3-day history of constipation, episodes of painful, watery diarrhea, abdominal pain, and inability to empty his bladder. The patient admitted to having eaten a large bag of unshelled sunflower seeds 5 days earlier. He denied fever, chills, nausea, and vomiting. On physical examination disclosed a sharp, thorny mass at the anal verge. Several sunflower seeds were extracted. Digital rectal disimpaction, however, was limited by severe pain, and the patient was hospitalized.

On admission abdominal plain x-rays (Fig. 1) showed no free air or air-fluid levels. A rectal bezoar characterized by an ill-defined mass was evident in the distal sigmoid and rectal ampulla. Another attempt at digital disimpaction was unsuccessful because of pain. The patient was given several mineral oil enemas in an attempt to lubricate the bezoar; however, it was not possible to administer the mineral oil proximal to the sunflower seed mass because of pain and a concern about perforation. Mineral oil was also given by mouth. The patient remained unable to urinate, and a urinary bladder catheter was placed. Only a few seeds were passed in a 24-hour period.

After adequate sedation was achieved with midazolam and propofol, flexible sigmoidoscopy revealed a large, thorny, irregular aggregation of sunflower seeds that retained its shape even when probed with the tip of the endoscope (Fig. 2). Manual disimpaction was performed and many sunflower seeds, shelled and unshelled, were retrieved (Fig. 3). Several hours after the procedure the patient developed a fever. Treatment with ampicillin, gentamicin, and metronidazole was started because of concern for bowel perforation; however, urinary cultures indicated a urinary tract infection, and antibiotics were changed to ciprofloxacin. An attempt was made to combine mineral oil by mouth and per rectum, along with polyethylene glycol by mouth to flush out the remaining sunflower seeds.

On the following day, digital examination of the anal verge again revealed a sharp, thorny mass. The abdomen was distended and a nasogastric tube was placed. The patient was able to pass the polyethylene glycol as watery diarrhea but this did not dislodge the partially obstructing mass. Manual disimpaction assisted by flexible sigmoidoscopy was again performed with the patient under conscious sedation, with removal of a large number of seeds.

A total of 4 disimpactions under conscious sedation were performed. After the fourth disimpaction colonoscopy confirmed that all sunflower seeds had been removed. In total, approximately 300 sunflower seeds were removed with an estimated blood loss of 500 mL. The patient resumed a regular diet. Mineral oil by mouth was continued for 24 hours. The patient was able to pass stool and flatus and to urinate with the catheter removed. He was discharged home with instructions to take docusate sodium.

DISCUSSION

Most food bezoars do not reach the colon or rectum. Rather, they lodge in the stomach or duodenum where...
they cause upper obstructive symptoms. Occasional case reports have documented that ingestion of unshelled sunflower seeds can cause obstructive or partially obstructive colonic or rectal bezoar. Sunflower seeds can reach the most distal colon or rectum or even the anal verge before they coalesce to form a bezoar.\textsuperscript{1-3} In this circumstance the patient presents with severe pain at the anal verge\textsuperscript{1,2} along with symptoms of overflow incontinence and constipation. Digital rectal examination usually reveals a sharp, crunchy mass at the anal verge, findings dubbed the “colonic crunch” by Melchreit et al.\textsuperscript{1} Seeds can usually be obtained on digital rectal examination, thereby making the diagnosis. A possible explanation for this presentation is that the sharp-edged seeds, which might otherwise pass through the anal sphincter, cause sphincter spasm. The spasm leads to coalescence of seeds and a mechanical obstruction. This, in fact, occurred in our patient after the first through third efforts at disimpaction. Flexible sigmoidoscopy showed no remaining bezoar, but large numbers of residual loose seeds had formed a new bezoar by the next day.

Conservative treatment (enemas, local rectal anesthesia) has been successful in a minority of cases. An attempt at conservative therapy had poor results. Conscious sedation allows digital disimpaction, which was curative in most reported cases, including ours. Endoscopy provided valuable assistance in assessing progress during the multiple efforts to disimpact the bezoars and ensured that the total burden of seeds had been cleared.

REFERENCES