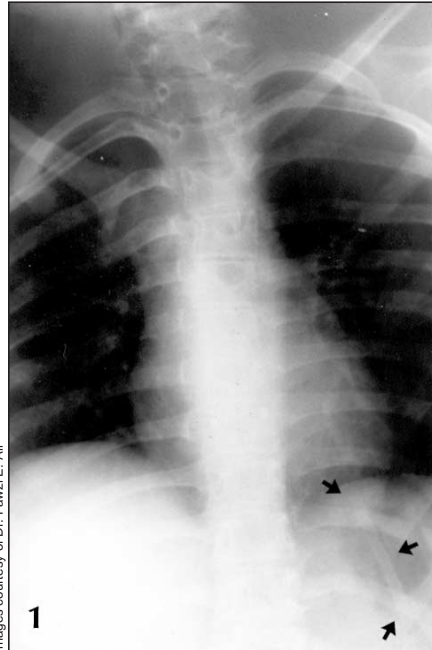


Incidental, delayed diagnosis of gastric foreign body in a 15-year-old boy



Images courtesy of Dr. Fawzi E. Ali

A 15-year-old boy with severe mental retardation was admitted to a long-term care institution. His parents mentioned their son's habit of putting nonedible items into his mouth but denied any episodes of his having ingested objects. A routine chest radiograph, ordered before admission to rule out tuberculosis, was read by a radiologist as being free of intrathoracic disease (Fig. 1).

One year after being admitted to the institution, the boy temporarily became weak and unable to walk. Radiographs of the lumbar spine showed no spinal lesions, but a tube-like shadow under the left hemi-diaphragm was noted on an anteroposterior view (Fig. 2, arrows). This shadow was retrospectively appreciated on the earlier chest radiograph (Fig. 1, arrows). A plain abdominal radiograph revealed other gastrointestinal objects, including a bolt, a paper clip and several pins and screws (Fig. 3; arrows point to tube-like object detected on other radiographs). The boy was asymptomatic from a gastrointestinal perspective, and the smaller

objects passed per rectum without incident over the next few weeks. The larger, tube-like object, later found to be a 16-cm long electrical cable with no wire inside, was retrieved from the stomach during an upper gastrointestinal endoscopy. The boy's esophagus, stomach and duodenal bulb appeared to be essentially unaffected by the cable. The institution's staff began to supervise the boy closely to prevent further ingestion of foreign bodies; follow-up radiographs revealed no further intra-abdominal foreign bodies.

Ingestion of foreign bodies is seen more frequently in children than in adults.¹ Adults known to commonly ingest foreign bodies include prison inmates and people with mental illness.² The prevalence of pica is 20% among mentally handicapped people, which puts this population at high risk for ingesting foreign bodies.³ Pica accounts for almost half of the laparotomies performed in mentally handicapped patients who present with an acute

abdomen.⁴ The diagnosis and treatment of foreign body ingestion in mentally handicapped people can be difficult because of communication problems, altered pain sensation, and the physical disabilities and skeletal deformities associated with mental retardation.⁵

More than 80% of foreign bodies that reach the stomach will pass unimpeded through the gastrointestinal tract.⁶ However, those thicker than 2 cm and longer than 5 cm will tend to lodge in the stomach.⁷ Objects that lodge in the gastric lumen can remain there for long periods without adverse consequences.⁸ Complications of foreign body ingestion include obstruction (occurring particularly at the pyloric sphincter and ileocecal valve), perforation and hemorrhage. Perforation is more common in patients with previous abdominal surgery or intestinal disease.⁹ Watchful waiting is generally justified and may include administration of emetics, laxatives, or spasmolytics, depending on the type and site of object.¹ However, early endoscopic or surgical removal of large

foreign bodies from the stomach and of objects causing complications is recommended.²

People caring for mentally handicapped people should watch out for ingestion of foreign bodies, which may not result in symptoms initially. Routine abdominal radiographs may be indicated for people with pica. The whole radiograph, including areas not being specifically examined (e.g., extrathoracic tissues in a chest radiograph), should be checked carefully.

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