

# Pica in a patient with schizophrenia

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A 42-year-old man with severe chronic schizophrenia who was on no medications presented to the internal medicine ward with a 2-week history of vomiting and 10-kg weight loss in the past 3 months. He was known to ingest small objects, which passed the gastrointestinal tract without requiring intervention.

He appeared malnourished but his vital signs were normal. We felt a mass with irregular borders in his upper abdomen. A computed tomography scan (Figure 1 and Appendix 1, Supplemental Figure 1, available at [www.cmaj.ca/lookup/doi/10.1503/cmaj.240393/tab-related-content](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.240393/tab-related-content)) showed that his stomach was filled with radiopaque material. His erythrocyte sedimentation rate was 110 (normal value < 15) mm/h, hemoglobin 6 (normal range 14–18) g/dL, iron 18 (normal range 50–180) µg/dL, and serum albumin 2.5 (normal range 3.4–5.4) g/dL.

We diagnosed pica, malnutrition, and anemia of mixed cause (gastrointestinal blood loss and chronic disease). We transfused 2 units of packed red cells and performed a laparotomy; through a gastrotomy we removed numerous plastic, metal, and wood objects (Figure 2 and Appendix 1, Supplemental Figure 2).

After surgery, the patient's symptoms improved. We infused ferric carboxymaltose and his hemoglobin normalized. Despite management by psychiatrists, the patient continued to ingest

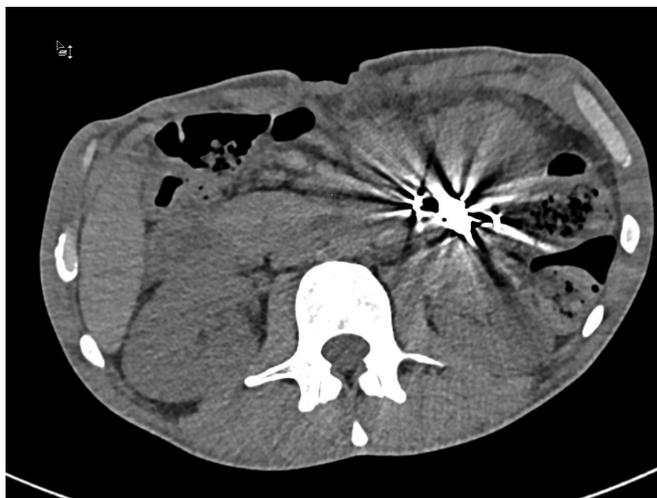
objects. Two months after discharge, he required endoscopic removal of some objects.

Pica is characterized by the compulsive ingestion of non-nutritive items.<sup>1</sup> Although many objects pass through the digestive tract harmlessly, some items can cause life-threatening consequences. A particular concern is the ingestion of button batteries, which require urgent removal owing to the considerable morbidity and mortality resulting from the leakage of hydroxide ions.

Endoscopy is the method usually preferred for the removal of intragastric objects.<sup>2</sup> However, surgery may be necessary depending on the clinical presentation and the type, shape, size, and number of objects ingested.<sup>3</sup> For our patient, the number of objects — about 400 — and the clinical presentation were decisive factors in choosing surgery.

## References

1. Johnson BE. Chapter 148: Pica. In: Walker HK, Hall WD, Hurst JW, editors. *Clinical Methods: The History, Physical, and Laboratory Examinations*. 3rd Edition. Butterworths; Boston: 1990.
2. Birk M, Bauerfeind P, Deprez PH, et al. Removal of foreign bodies in the upper gastrointestinal tract in adults: European Society of Gastrointestinal Endoscopy (ESGE) clinical guideline. *Endoscopy* 2016;48:489-96.
3. Fung BM, Sweetser S, Wong Kee Song LM, et al. Foreign object ingestion and esophageal food impaction: an update and review on endoscopic management. *World J Gastrointest Endosc* 2019;11:174-92.



**Figure 1:** Computed tomography scan of the abdomen of a 42-year-old man, showing material at the gastric endoluminal site causing beam-hardening artifacts related to the presence of ingested objects.



**Figure 2:** Photograph of the many plastic, wooden, and metal objects that were surgically removed from the patient's stomach.

**Competing interests:** None declared.

This article has been peer reviewed.

The authors have obtained consent from the patient's mother.

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