Surgical decontamination in ferrous sulfate intoxication

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Figure 1. Abdominal plain radiograph. Most tablets remained inside the stomach.

A 32-year-old woman was transferred to the emergency room after ingestion of 200 tablets of 80 mg ferrous sulfate for suicide. She received gastric lavage 30 minutes after ingestion and activated charcoal before transfer. Most tablets remained inside the stomach on abdominal plain radiography (Figure 1). The initial serum iron level was 326 µg/dl (normal range, 50 to 130 µg/dl), and deferoxamine therapy was started with 15 mg/kg/hr for 24 hours. Emergency

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endoscopy was performed 15 hours after ingestion. Not all tablets could be removed because of increased bleeding tendency due to black granules covering the gastric mucosa and numerous tangled tablets (Figure 2). At 23 hours after ingestion, she underwent emergency laparotomy, and a total of 114 tablets was removed (Figures 3 and 4). Serum iron level was normalized at the day after surgery.

In this case, without mechanical removal, the ingested tablets would have remained in the stomach for a long time. Instead, the patient recovered after emergency laparotomy. In conclusion, surgical removal may be an option if endoscopic decontamination is impossible for early decontamination in acute iron intoxication.

Figure 2. Emergency endoscopic findings. The stomach mucosa was covered with black granules, and many tablets were tangled and stuck to the stomach wall.

Figure 3. Emergency laparotomy and tablet removal.

Figure 4. The surgically removed tablets.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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