

## Images

# Illness Comes from Food: Incidental Finding of Mis-Swallowed Fish Bone

Hung-Yuan Su<sup>1</sup>, Hung-Pin Chan<sup>2</sup>, Hung-Yen Chan<sup>1</sup>

## Case Report

A 59-year-old woman with history of diabetes mellitus presented to our emergency department (ED) with left lower quadrant abdominal pain for one day. Her past history was unremarkable except tubal ligation and appendectomy over ten years ago. On initial triage, her vital signs were within normal limits for her age, except low-grade fever. She denied trauma history in recent days prior to her ED visit.

Abdominal examination demonstrated localized tenderness over the left lower quadrant without rebound tenderness or involuntary guarding. The patient's white blood cell count was elevated at 12,120/mm<sup>3</sup>. Serum biochemical study showed elevation of C-reactive protein level up to 35.4 mg/L (normal range: 0 – 5 mg/L). Urinalysis showed pyuria bacteriuria (culture report: *Gardnerella vaginalis*). Her abdominal pain was refractory to initial analgesic management. Review of her initial plain abdominal radiograph revealed one suspicious sharp radiopaque object over epigastric region of the abdomen (Fig. 1).

Subsequent abdominal computed tomog-

raphy (CT) revealed a needle-shaped foreign body with penetration of gastric antrum and pneumoperitoneum (Fig. 2A). The diagnosis of fish bone-induced perforation of gastric antrum over the lesser curvature was confirmed by upper midline laparotomy and gastrorrh-



Fig. 1 Plain abdominal radiograph showing (1) one suspicious sharp radiopaque object over the epigastric region (arrow), (2) one patchy opacity over left iliac region, (3) stool retention in the colon.

From the <sup>1</sup>Department of Emergency Medicine, E-Da Hospital, and <sup>2</sup>Department of Nuclear Medicine, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan.

Received: February 27, 2017

Accepted: July 27, 2017

Address reprint request and correspondence to: Hung-Yen Chan, Department of Emergency, E-Da Hospital, Kaohsiung City 82445, Taiwan.

Tel: +886-9-33630321, E-mail: hongyenchan0407@yahoo.com.tw

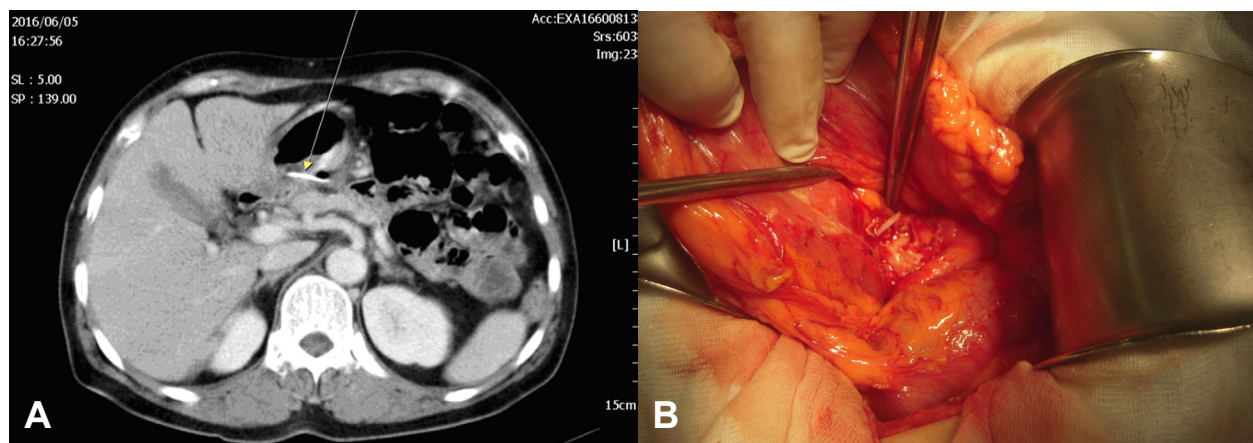


Fig. 2 (A) Computed tomography with enhancement showing one hyperdense needle-shaped object embedded in the wall of gastric antrum (arrow) with free air in the lesser sac. (B) Laparotomy and gastrostomy revealing a fish bone-induced perforation of size 2.2 x 0.3 cm over the lesser curvature of gastric antrum.

phy (Fig. 2B). The postoperative course was uncomplicated.

Although most ingested foreign bodies pass through the alimentary tract uneventfully within one week,<sup>1</sup> some may get embedded and cause perforation. The ileum (39%) and jejunum (27%) are the most common sites of perforation caused by the ingested foreign bodies.<sup>2</sup> Fish bone is the most commonly ingested foreign body in Hong Kong and China.<sup>3,4</sup> Foreign body-induced perforation of the gastrointestinal tract was accurately diagnosed preoperatively only in 23% of patients, despite careful history-taking and imaging studies including plain abdominal radiograph and/or CT scan.<sup>2</sup>

Since incidental ingestion of foreign bodies usually could not be recalled, a definitive diagnosis is frequently delayed. The difficulty in diagnosis is further increased by the nature of fish bones, which are only slightly radiopaque and rarely discernible on plain films. A high degree of vigilance is needed to reach the diagnosis which may be made based

on careful interpretation of imaging studies. Although lower abdominal pain usually suggests urogenital or colonic problems, our case demonstrated that it can be caused by inflammatory irritation of the pelvic cavity from foreign body-induced gastric antrum perforation.

## References

1. McCanse DE, Kurchin A, Hinshaw JR: Gastrointestinal foreign bodies. *Am J Surg* 1981;142:335-7.
2. Goh BK, Chow PK, Quah HM, et al: Perforation of the gastrointestinal tract secondary to ingestion of foreign bodies. *World J Surg* 2006;30:372-7.
3. Chu KM, Choi HK, Tuen HH, et al: A prospective randomized trial comparing the use of the flexible gastroscope versus the bronchoscope in the management of foreign body ingestion. *Gastrointest Endosc* 1998;47:23-7.
4. Lai AT, Chow TL, Lee DT, et al: Risk factors predicting the development of complications after foreign body ingestion. *Br J Surg* 2003; 90:1531-5.