Internal and Emergency Medicine (2021) 16:1371–1372
https://doi.org/10.1007/s11739-020-02519-5

CE - MEDICAL ILLUSTRATION

Unintentional fish bone ingestion causing perforation of small intestine

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Received: 9 August 2020 / Accepted: 25 September 2020 / Published online: 6 October 2020

A 34-year-old man without systemic disease visited our emergency department with presentation of epigastric pain for 2 days. The pain was constant, dull and did not radiate. He was afebrile on arrival. Physical examination showed epigastric tenderness and rebounding tenderness. Laboratory examination showed a white blood cell count of 17,900/μL and C-reactive protein level of 39.1 mg/dL (normal range: < 5 mg/dL). Radiograph of the abdomen showed local central bowel ileus formation (Fig. 1a). Subsequent computed tomography (CT) was arranged and showed a linear hyperattenuating 2.8-cm-in-length foreign body in the small intestine of right upper quadrant, penetrating the bowel wall with fat stranding in surrounding tissues (Fig. 1b). There was no evidence of pneumoperitoneum on images. The patient underwent laparoscopic exploration presenting foreign body which penetrated the small intestine (Fig. 1c). A fish bone was removed smoothly and closure small bowel perforation was done (Fig. 1d) and was discharged uneventfully 5 days later. An intraoperative diagnosis of *fish bone impaction with small bowel perforation* was made.

Unintentional ingestion of a fish bone is common in the emergency department. Fortunately, most of these fish bones disposed through the stool without causing any serious complications. Less than 1% of the ingested foreign bodies may cause perforation [1]. The terminal ileum is the most common site of perforation, followed by the duodenal C-loop [2]. CT scan is the effective modality for the diagnosis of foreign bodies and detect perforation [3]. Acute intestinal perforation secondary to foreign body ingestion is an emergency requiring surgical intervention [4].

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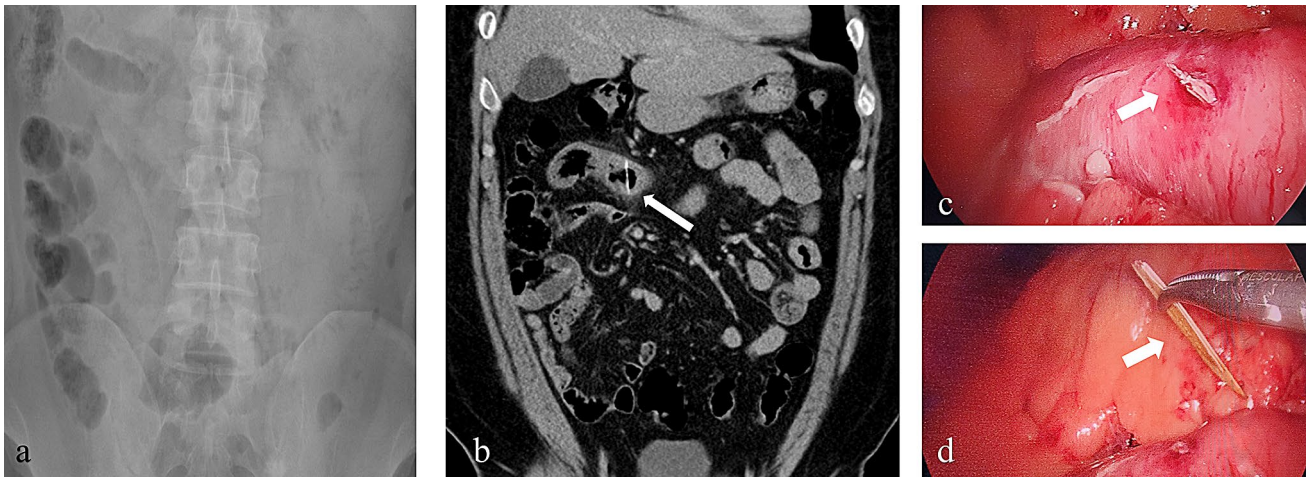

Fig. 1 **a** Radiograph of the abdomen showed local central bowel ileus formation. **b** CT showed a linear hyperattenuating 2.8-cm-in-length foreign body in the small intestine (arrow) and fat stranding in surrounding tissues without evidence of pneumoperitoneum. **c** A foreign body penetrated the small intestine (arrow). **d** A fish bone was removed smoothly (arrow)

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval The manuscript does not contain clinical studies or identifying patient data.

Statement of human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent Given the absence of identifying patient data, informed consent was deferred.

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