CLINICAL IMAGE

A folded-blister pill pack causes ileal perforation

Yukihiro Otaka^{1,2} Takaaki Tsutsui¹

¹Kidney Disease and Dialysis Center, Hidaka Hospital, Takasaki, Japan

²Department of General Medicine, Gunma University Graduate School of Medicine, Maebashi, Japan

Correspondence

Yukihiro Otaka, Kidney Disease and Dialysis Center, Hidaka-kai Hidaka Hospital, Nakao-machi 886, Takasaki, Gunma, 370-0001, Japan. Email: m13702059@gunma-u.ac.jp

| Naoko Yukawa¹ | Yuichi Yoshida¹ | Jun'ichi Tamura² |

Clinical Case Reports

WILEY

Abstract

Ileal perforation by an accidental ingestion of a blister pill pack is rare. A detailed history of the present illness is the initial key to proceed appropriate investigations. Computed tomography is the gold standard for diagnosis of the disease.

KEYWORDS

blister pack, computed tomography, ileal perforation, ingestion

Inadvertent ingestion of a blister pack is a rare cause of ileal perforation. Since a blister pack is typically radiolucent, laparotomy remains a diagnostic and therapeutic procedure to identify the cause of perforation. Computed tomography may be a promising tool to detect a blister pack in the bowels.

1 **OUESTION**

An 85-year-old Japanese woman was presented to our hospital with colicky abdominal pain, nausea, and vomiting of 1day period. She had a high fever, and laboratory test revealed leukocytosis with inflammatory reaction. Abdominal contrast-enhanced computed tomography (CT) was performed to

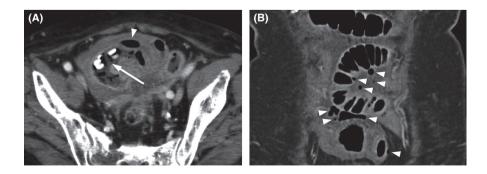
detect the primary cause of her symptoms (Figure 1). What is the diagnosis?

ANSWER 2

2.1 | Ileal perforation by inadvertent ingestion of a blister pack

CT revealed a part of poorly enhanced ileal lesion containing two pairs of stacked high-density bricks (Figure 1A, arrow). Free gases and fluids within a peritoneal cavity suggested an intestinal perforation (Figure 1, arrowheads). She was transported to another hospital, and an emergency laparotomy was performed. Approximately 30 cm of small intestine was

FIGURE 1 Abdominal contrastenhanced computed tomography (A: axial; B: coronal plane) showed two pairs of stacked high-density bricks (arrow), which represented a folded-blister pill pack containing 4 tablets of loxoprofen, in a poorly enhanced ileal lesion. Peritoneal free gases (arrowheads) and para-ileal effusions suggested acute peritonitis by the ileal perforation



This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes. © 2019 The Authors. Clinical Case Reports published by John Wiley & Sons Ltd.

resected, and a folded-blister pill pack containing 4 tablets of loxoprofen was found. A whole part of the package was $40 \times 15 \times 8$ mm.

Inadvertent ingestion of a blister pack is a rare cause of bowel perforation in <1% of the accidental ingestion of a foreign body.¹ Among the sites of perforation, the ileum accounts for approximately two thirds of all intestinal perforations by a blister pack.² Although a blister pack is typically radiolucent, CT is a promising tool to detect the ingested pack. In addition, a detailed history of the present illness is a key to proceed appropriate radiological investigation.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare regarding this manuscript.

AUTHOR CONTRIBUTIONS

YO, NY, and YY: drafted the manuscript, obtained the pictures, and contributed to patient care. JT and TT: supervised the study and critically reviewed the paper. All authors wrote, proofread, and approved the manuscript.

ORCID

Yukihiro Otaka D https://orcid.org/0000-0002-9162-7188

REFERENCES

- Goh BK, Chow PK, Quah HM, et al. Perforation of the gastrointestinal tract secondary to ingestion of foreign bodies. *World J Surg.* 2006;30:372-377.
- Fleres F, Ieni A, Saladino E, et al. Rectal perforation by inadvertent ingestion of a blister pack: A case report and review of literature. *World J Clin Cases*. 2018;6:384-392.

How to cite this article: Otaka Y, Yukawa N, Yoshida Y, Tamura J, Tsutsui T. A folded-blister pill pack causes ileal perforation. *Clin Case Rep.* 2019;7:2254–2255. https://doi.org/10.1002/ccr3.2440