

Dietary small bowel obstruction

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DESCRIPTION

A 59-year-old man with no history of abdominal or intestinal surgery, trauma or psychiatric illness presented to our hospital with abdominal pain and vomiting. Physical examination revealed hyperactive bowel sounds and lower abdominal tenderness. Abdominal CT revealed a small bowel obstruction in the lower abdominal space, possibly due to obstruction of the fusiform low attenuation (−162 Hounsfield units) region (figure 1, arrows), and suspected ileal stricture on the anal side of the low-attenuation region. The region was similar to that of fat to air attenuation. Insertion of a nasogastric tube did not improve his condition, blood pressure decreased, and his symptoms were intractable. Emergency surgery was conducted to release the obstruction. Operative and pathological findings revealed mucosal damage and necrosis in the small intestine with no ileal stricture and adhesion; approximately 50 cm of the affected region was resected and an ingested 7.5 cm diameter *shiitake* mushroom was found (figure 2). The small bowel obstruction disappeared upon removal of the mushroom and the patient was discharged on post-operative day 17.

Given that mushrooms are rich in fibre, they absorb consumed oils, intestinal fluids and intestinal gases, and show very low attenuation on CT. Moreover, as in the present case, unintentionally swallowing one whole can cause bowel obstruction. Bowel obstruction most likely occurs in the small



Figure 1 CT revealed a small bowel obstruction and a very low attenuation area at the lower end of the dilated small intestine (arrows).



Figure 2 The small bowel obstruction was caused by a whole mushroom, which appeared as a very low attenuation area on CT.

intestine, given its diameter and weak movements.^{1 2} In addition, it sometimes occurs in the narrowest ileal segment in the oral side about 100 cm from the ileocaecal valve.³ The obstruction site is almost always normal.³

Our findings suggest that when a very low attenuation area is considered, the cause of dietary bowel obstruction by CT, a whole mushroom may be the culprit. While, such small bowel obstruction due to food substance is rare, it does occur occasionally, as in the present case.

Learning points

- ▶ Food substance is a potential factor in dietary small bowel obstruction.
- ▶ In the event of dilation of the lower end of the small intestine, a very low attenuation area on CT might be attributed to a whole mushroom.

Competing interests None.

Patient consent Obtained.

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