Stuck in the stoma: an unusual cause of small bowel obstruction seen on abdominal computed tomography

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Clinical

A 72-year-old man presented with colicky abdominal pain and distension over the previous 24 hours. His past history included a total colectomy and terminal ileostomy for Crohn's disease. He had had no output per stoma over the past 12 hours.

Clinical examination revealed a soft distended abdomen with a swollen, oedematous and painful stoma. A finger probing the stomal lumen could not pass beyond 5 cm due to an apparent hard food bolus. The lumen was also found to be tight at the level of the fascia.

A sigmoidoscope was unable to pass beyond this level. He proceeded to computed tomography (CT) of the abdomen in order to further elucidate the nature of the obstruction.

Figure 1. CT of the abdomen (axial image) with intravenous and oral contrast showing half a peach stone just deep to the cutaneous surface of the stoma
Figure 2. CT of the abdomen (sagittal reconstruction) showing half a peach stone just deep to the cutaneous surface of the stoma. The proximal bowel is prominent without appearing obstructed.
The images shown (Figures 1–3) are from the portal venous phase of a contrast-enhanced CT scan of the abdomen on a Philips Brilliance 16-slice scanner (Philips Medical Systems, Cleveland, Ohio, USA). Sagittal reconstruction is provided (Figure 2). Dilute meglumine diatrizoate with sodium amidotrizoate (Gastrografin, Berlimed Sa, Madrid, Spain) was used to opacify the bowel. Both the sagittal and axial scans...
clearly demonstrate a dense structure, 16 mm in length, just deep to the cutaneous surface of the stoma.

The scout image (Figure 3) shows prominent air-filled loops of small bowel without overt obstruction. Gastrografin can be seen in pelvic loops of small bowel that are of normal calibre, which negates the possibility of an ileus. Likewise, the bowel immediately deep to the observed density is prominent without appearing obstructed. On closer questioning, the patient revealed that he thought he had swallowed half a peach stone 1 day earlier.

The patient proceeded to theatre where, under general anaesthesia, half a peach stone was extracted from the stomal lumen using sponge forceps. The patient had a return of bowel function and was discharged the following day.

Interestingly, perusal of the clinical notes showed a previous small bowel obstruction 14 years earlier thought to be secondary to a food bolus obstruction. That episode settled conservatively with an enema via the ileostomy.

### Discussion

Up to 76% of patients with an ileostomy experience stomal complications within 20 years. Bowel obstruction is seen in 17–22% of patients.\(^1\) Foreign material is widely known to cause a range of intra-abdominal complications, including obstruction of stomas, presumably causing greater clinical effect in patients with a narrower stoma or a tighter fascial defect, although there are seldom reports in the literature.\(^2,3\)

Foreign body obstruction of a stoma should therefore always be considered and actively sought in the history and examination of a stoma patient with obstructive symptoms. Dietetics staff in our institution routinely advise patients to avoid certain foods, such as nuts and seeds, due to their bowel obstructing potential.

There have been very few previous reports of imaging studies so nicely demonstrating the nature and location of obstructing matter.\(^4-6\) Whilst our case demonstrates how CT diagnosis enabled appropriately tailored definitive treatment, it would be expected that many cases of food bolus obstruction could be diagnosed and managed clinically, without the need for cross-sectional imaging.

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**References:**

