Endoscopic ultrasound-guided ileocolostomy using a novel lumen-apposing metal stent for small-bowel obstruction with peritoneal carcinomatosis

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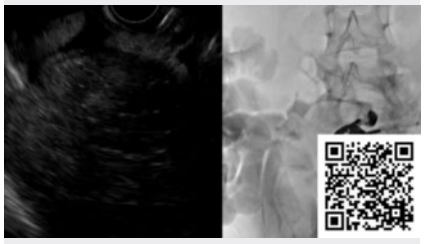
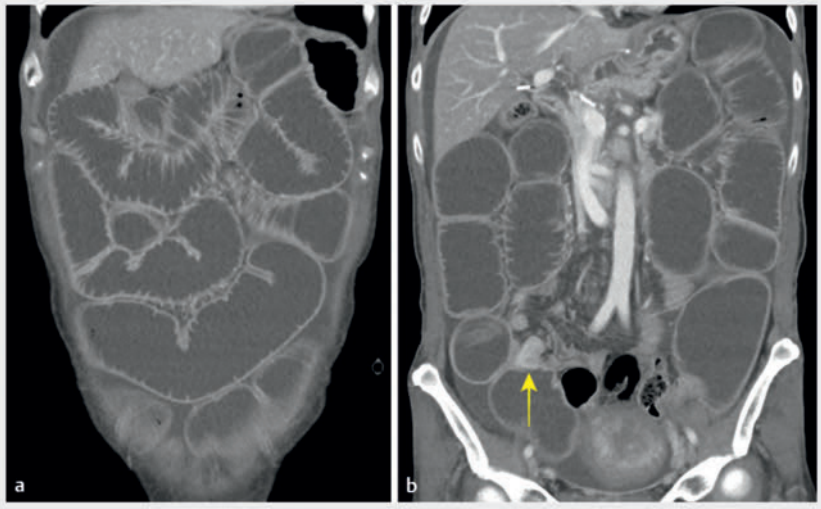
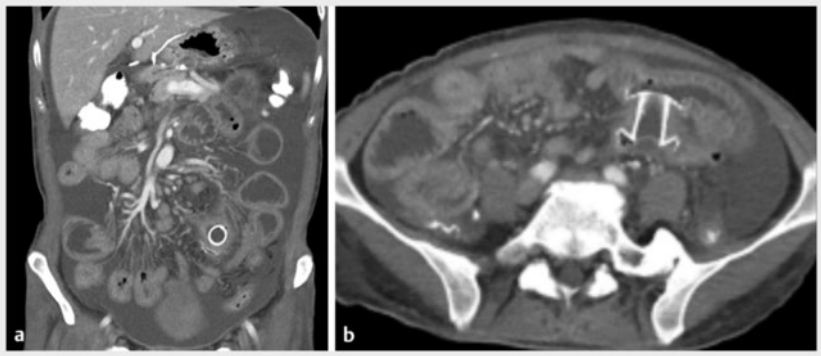


Video 1 Endoscopic ultrasound (EUS)-guided ileocolostomy using a novel lumen-apposing metal stent (LAMS) to treat malignant bowel obstruction.



▶ **Fig. 1** Images from the initial computed tomography scan showing: **a** significant dilatation of the entire small intestine, accompanied by minimal ascites; **b** a pronounced stricture (yellow arrow) resulting from the recurrence of peritoneal dissemination in the distal ileum.



▶ **Fig. 2** Images from the subsequent computed tomography scan 2 weeks after the endoscopic ultrasound-guided ileocolostomy showing the correctly positioned lumen-apposing metal stent, which has decompressed the entire small intestine.

Peritoneal carcinomatosis is a serious condition stemming primarily from advanced gastrointestinal cancers, which causes significant symptoms such as vomiting due to malignant bowel obstruction (MBO) [1, 2]. The prognosis is poor, treatments often lack evidence-based guidelines, and many interventions, including surgical options for related MBO, present challenges [3]. Herein, we present a case of endoscopic ultrasound (EUS)-guided ileocolostomy using a novel lumen-apposing metal stent (LAMS) to treat MBO associated with peritoneal carcinomatosis.

A 52-year-old woman presented to our hospital with frequent vomiting. She had undergone subtotal gastrectomy with Billroth I anastomosis 15 years previously. She had recently been diagnosed with recurrence of peritoneal carcinomatosis. An abdominal computed tomography (CT) scan revealed significant dilatation of the entire small intestine (▶ **Fig. 1 a**) and a leading stricture in the distal ileum (▶ **Fig. 1 b**). Given the patient's wishes and her unsuitability for surgery, we first attempted to place an enteral stent using a cap-assisted colonoscope; however, even at the point of the scope's furthest reach, 30 cm from the ileocecal valve, the ileal stricture could not be accessed. After this unsuccessful attempt, we opted to perform a transluminal EUS-guided ileocolostomy (▶ **Video 1**). Using a linear echoendoscope (EG-580UT; Fujifilm Medical Systems, Tokyo, Japan), we identified significant dilatation of the ileum. The distal ileum in the pelvic cavity was then punctured from the sigmoid colon using a standard 19-gauge needle (EZ Shot3; Olympus Medical, Tokyo, Japan). Following needle puncture, contrast agent was injected to visualize the

distal ileum fluoroscopically. Subsequently, a guidewire was placed and coiled in the distal ileum. Finally, a novel LAMS with an electrocautery-enhanced tip (Niti-S HOT SPAXUS; Taewoong Medical, Gyeonggi-do, South Korea) was inserted and deployed across the ileocolic tract. Upon successful deployment, a substantial volume of liquid fecal material flowed into the sigmoid colon via the LAMS.

Following the intervention, the patient's symptoms improved notably, and there were no immediate or delayed adverse events. A subsequent CT scan verified appropriate positioning of the LAMS, connecting the distal ileum and sigmoid colon (▶ **Fig. 2**). EUS-guided ileocolostomy using this novel LAMS is a viable alternative to surgery for the management of MBO.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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