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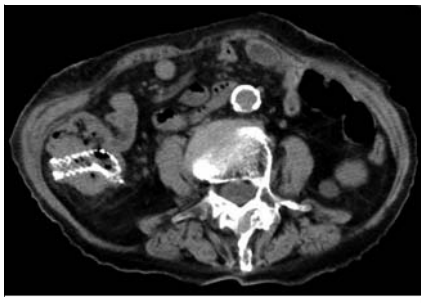
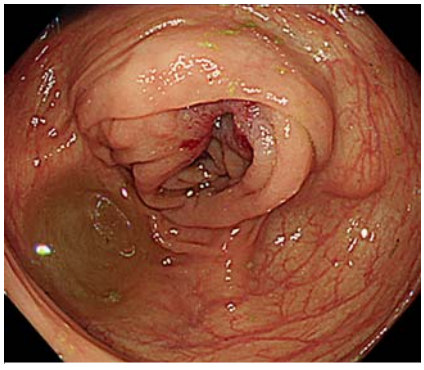
Use of a colonic stent to recover a biliary stent retained by malignant colonic obstruction

A 95-year-old woman had a 10 mm × 6 cm fully covered biliary stent implanted at another hospital to treat lower common bile duct stenosis caused by biliary neoplasm. Six months later, the stent became dislodged and migrated into the small intestine. Another uncovered biliary stent was inserted to replace it. She was kept under observation because of performance status 4; however, nausea and vomiting continued, and small intestinal obstruction caused by the migrated stent was suspected. She was later referred to our department for recovery.

Computed tomography showed that the biliary stent had migrated to the ascending colon (▶ **Fig. 1**); its recovery via colonoscopy was attempted. Colonoscopy revealed a circumferential stenosis caused by type 2 advanced colon cancer (▶ **Fig. 2**), and gastrografin enterography revealed retention of the migrated stent in the cecum (▶ **Fig. 3**). Owing to the perforation risk [1 – 5], we decided to relieve the obstruction with a colonic stent not only for palliative purposes but also for recovery of the biliary stent.

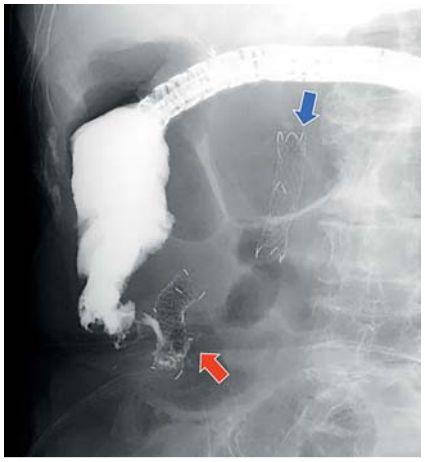


▶ **Fig. 1** Computed tomography showed that the biliary stent had migrated to the ascending colon.

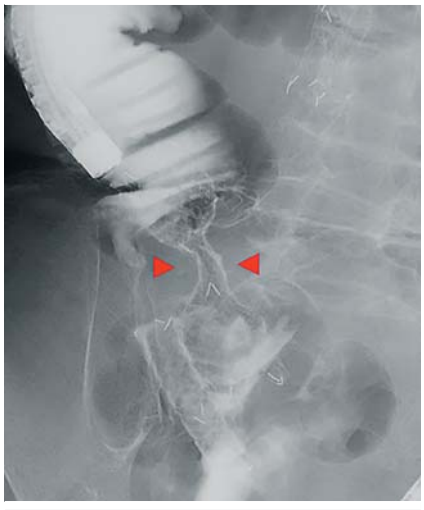


▶ **Fig. 2** Colonoscopy revealed a circumferential stenosis caused by type 2 advanced colon cancer in the ascending colon, which had not been identified on computed tomography.

On Day 3 post-admission, a newly developed 8-cm colonic stent with a 9-Fr delivery system and a 22-mm diameter was placed through the scope using a slim-caliber colonoscope (▶ **Fig. 4**). On Day 7, a short-type double-balloon endoscope, fitted with an overtube, was used to recover the migrated stent. The colonic stent was well dilated, and the overtube passed through without resistance. The biliary stent was visible immediately after passing the stenosis. Its tip was grasped with a grasping forceps, and it was recovered successfully (▶ **Fig. 5**, ▶ **Video 1**).



▶ **Fig. 3** Gastrografin enterography revealed circumferential stenosis of a 3-cm bowel section extending from the cecum, with the migrated biliary stent on the oral side (red arrow). Another uncovered biliary stent was inserted in the common bile duct (blue arrow) to replace the migrated stent.



▶ **Fig. 4** A newly developed 8-cm colonic stent with a 9-Fr delivery system and a 22-mm diameter (Niti-S MD type; Taewoong Medical Co., Gimpo, South Korea) was placed through the scope using a slim-caliber colonoscope (red arrows).

▶ **Fig. 5** The biliary stent was recovered by double-balloon endoscopy. A grasping forceps was used to grasp the tip of the biliary stent and pull it back into the overtube together with the scope.

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Video 1 Treatment strategy and procedure using a colonic stent to recover a biliary stent retained by malignant colonic obstruction.

There were no postoperative complications, and the patient was discharged on Day 19.

Although the concomitant presence of colon cancer made this a special case, this method may be used for future recovery procedures for items such as orally displaced colonic stents or foreign objects retained by malignant colonic obstruction.

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Competing interests

None

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References

[1] Jafferbhoy SF, Scriven P, Bannister J et al. Endoscopic management of migrated biliary stent causing sigmoid perforation. BMJ Case Rep 2011. doi:10.1136/bcr.04.2011.4078
[2] Alcaide N, Lorenzo-Pelayo S, Herranz-Bachiller MT et al. Sigmoid perforation caused by a migrated biliary stent and closed with clips. Endoscopy 2012; 44 (Suppl. 02): E274
[3] Jones M, George B, Jameson J et al. Biliary stent migration causing perforation of the caecum and chronic abdominal pain. BMJ Case Rep 2013. doi:10.1136/bcr-2013-009124
[4] Tzovaras G, Liakou P, Makryiannis E et al. Acute appendicitis due to appendiceal obstruction from a migrated biliary stent. Am J Gastroenterol 2007; 102: 195 – 196
[5] Mady RF, Niaz OS, Assal MM. Migrated biliary stent causing perforation of sigmoid colon and pelvic abscess. BMJ Case Rep 2015. doi:10.1136/bcr-2014-206805

Bibliography
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