Coil valve syndrome: a rare complication of percutaneous transhepatic obliteration successfully treated by argon plasma coagulation and double-balloon endoscopy

Percutaneous transhepatic obliteration (PTO) is now widely used for prophylactic treatment of gastric varices [1]. A stray- ing coil tip in the stomach is sometimes reported as an adverse event [2, 3], but there have been no reports of one reaching the small intestine from the stomach. In this case, the migrated coil tip with food residue was shaped like a ball and passed into the jejunum, causing a phenomenon resembling ball valve syndrome [4].

A 70-year-old woman was admitted with epigastric pain. She had been treated for gastric varices by PTO with coils (Fig. 1) 4 years earlier. One of these had migrated into the stomach asymptotically 1 year after PTO (Fig. 2) and had been carefully monitored. Esophagogastroduodenoscopy on admission revealed the coil extending through the stomach and hooking into the mucosa at the angular portion of the stomach (Fig. 3). Abdominal computed tomography revealed that the coil tip was now in the jejunum (Fig. 4). Because of the risks of ulceration, perforation, or intussusception, we decided to remove it. Oral double-balloon enteroscopy (DBE) detected the coil tip enveloped by food residue in the jejunum; we carefully grasped it using forceps and pulled it back into the stomach. At first, we failed to cut the coil wire using a scissor-type electrical knife and loop cutter, but we finally succeeded in cutting it using argon plasma coagulation (APC) (Video 1). There were no adverse events during this procedure and the patient’s symptoms improved. The recovered coil was an 82-cm cerecyte coil. It was only possible to cut it using APC because the coil wire had unraveled and lengthened (Fig. 5). Compared with radiologists, few gastroenterologists know about migrated PTO coils and their characteristics. This case shows a rare complication of PTO that was successfully treated by APC and DBE. We propose to describe this “coil valve syndrome” as “ball valve-like syndrome due to deviated coil.”

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Fig. 1 Cerecyte coil.

Fig. 2 Endoscopic view of coil used to treat gastric varices, migrating from the fornix of the stomach (arrow).

Fig. 3 Endoscopic view of a migrated coil biting into the mucous membrane at the angular portion of the stomach.
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Competing interests

None

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CORRECTION


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In the above-mentioned article the name of the author Yuichi Yoshida has been corrected.
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