Successful peroral endoscopic removal of migrated metal stent

Duodenal covered self-expandable metal stents (C-SEMSs) are designed with stent mesh to prevent tumor ingrowth [1]. However, stent migration is a major adverse event associated with C-SEMS, occurring in 8%–25% of cases [2, 3]. In some cases, migrated stents exit via the rectum or remain in the body without complications [4]. However, when stent migration causes an intestinal obstruction, surgical removal is required [5]. To our knowledge, there are few reports of migrated SEMS removal via peroral endoscopy. Here, we outline a case of successful removal of a migrated duodenal C-SEMS using enteroscopy through an expanded second duodenal SEMS (▶ Video 1).

An 80-year-old man diagnosed with a malignant duodenal obstruction caused by pancreatic cancer underwent endoscopic duodenal C-SEMS placement (▶ Fig. 1). He was discharged once he was able to consume food by mouth. He was admitted to the emergency ward 17 days after the procedure with abdominal distension and vomiting.

Computed tomography showed that the stent had migrated into the jejunum, causing an intestinal obstruction without perforation (▶ Fig. 2). As the position of the migrated stent did not change on follow-up X-rays, we decided to remove the stent using enteroscopy. However, the enteroscope would not pass because of duodenal stenosis, so we decided to place a second duodenal SEMS (▶ Fig. 3). The second SEMS was fully expanded 2 days later, and we successfully passed the stenosis and reached the first, migrated C-SEMS. To prevent gastrointestinal injury during stent removal, we attached an overtube to the enteroscope and gently placed it through the stenosis. Using grasping forceps and a snare, we captured the migrated C-SEMS within the overtube and safely removed it per orally (▶ Fig. 4). No necrosis or perforation was observed where the migrated C-SEMS had been stuck. After SEMS removal, the patients’ symptoms resolved. This technique might be a useful option for removing a migrated SEMS per orally without surgery.

Competing interests

None
The authors

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