Endovascular coil migration and upper gastrointestinal bleed: a causal or casual relationship?

Fig. 1 Endoscopic image of the coil in the duodenum 2 years before the present admission.

A 77-year-old man was admitted with an acute cerebral infarct for which he was started on low-molecular-weight heparin and antiplatelets on admission. He had no history of hematemesis or melena; however, his nasogastric tube showed the presence of altered blood.

He had a significant history of massive hematemesis 4 years previously, for which he underwent emergency coil embolization of the gastroduodenal artery following a failed attempt at endoscopic hemostasis. He was readmitted 2 years later with a pontine infarct, and an esophagogastroduodenoscopy (EGD) showed protrusion of the coil into the duodenum (▶ **Fig. 1**). A contrast computed tomography (CT) scan of the abdomen showed metallic coils occluding the gastroduodenal artery, and a portion of the coil projected focally and endoluminally through the medial wall of the first part of the duodenum (▶ **Fig. 2**).

During the present admission, an EGD showed a deformed coil protruding through the anterior wall of the duodenum, and an adjacent clean-based ulcer <0.5 cm in size (▶ **Fig. 3**). Abdominal radiograph showed the presence of two coils in the abdomen, one of which was partially deformed (▶ **Fig. 4**). The patient was managed conservatively with intravenous proton pump inhibitors. As he had no overt gastrointestinal bleeding or drop in hemoglobin level, an angiography or contrast CT was not performed.

When endoscopy and medical management fails, interventional embolotherapy is not only a good alternative to surgery but is now considered to be the therapy of choice [1]. Migration of the coil is a very rare but known complication, with some coils even being passed per rectum [2–5]. Fortunately in this case, the migration was only local, self-limiting, and apparently nonprogressive. It is unclear, however, whether the ulcer and bleed were caused by the coil or were due to the use of antiplatelet drugs. Patients undergoing coil embolization should therefore be carefully followed up periodically for any such delayed complications.

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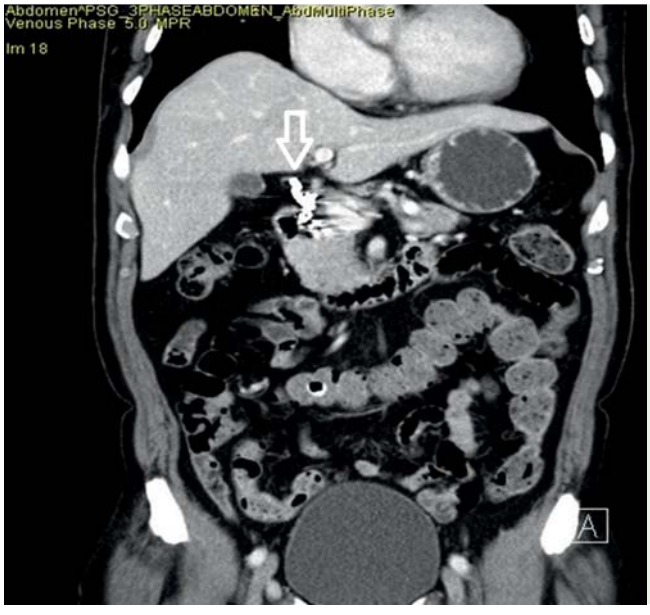

Fig. 2 Computed tomography of the abdomen 2 years before the present admission, showing the coils (white arrow) in the gastroduodenal artery, with focal endoluminal projection into the duodenum.

Fig. 3 Esophagogastroduodenoscopy during the present admission, showing the deformed and protruding coil with ulcer in the duodenum.

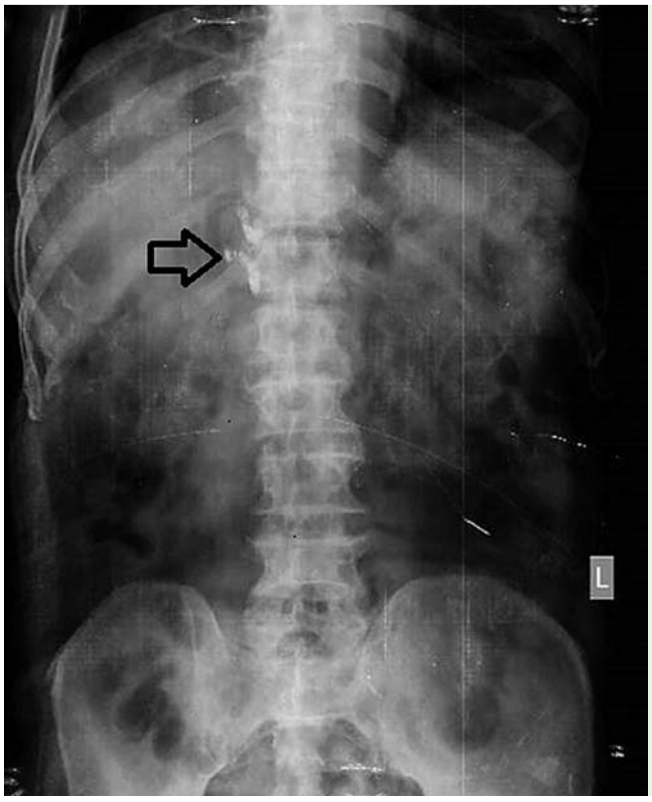

Fig. 4 Abdominal radiograph during the present admission, showing two coils, one of which was deformed (black arrow).

Bibliography
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