Recurrent upper gastrointestinal bleed in a 26 year old female

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ABSTRACT

According to recent society guidelines, upper gastrointestinal bleed initial approach includes assessment of hemodynamic status, fluid resuscitation if necessary, transfusion strategy to target hemoglobin above 7 (g/dL), use of intravenous proton pump inhibitor and generally upper endoscopy within 24 hours. We present a case of a 26-year-old woman who sought treatment after one episode of hematemesis and pre-syncope. She had a similar presentation three months earlier and received interventional radiology-guided mesenteric angiography and the use of multiple coils to embolize a 1.5-cm deep punched-out duodenal ulcer. Migration of the coil was noted on endoscopy within the previously described ulcer. Coil migration is expected to occur in up to 3% of cases of endovascular embolization. However, migration into the duodenum is uncommon and could have actually been a contributing factor to the current bleed.
Keywords: Anemia, coil migration, endoscopy

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INTRODUCTION

According to recent society guidelines, upper gastrointestinal bleed (UGIB) initial approach includes assessment of hemodynamic status, fluid resuscitation if necessary, transfusion strategy to target hemoglobin above 7 (g/dL), use of intravenous proton pump inhibitor and generally upper endoscopy within 24 hours [1,2]. Angiographic management of UGIB is becoming more available and even appears in the algorithm for brisk or massive suspected small bowel bleeding [3]. Some of the most common reasons for UGIB include peptic ulcers, erosive esophagitis/gastritis/duodenitis, portal hypertensive gastropathy, angiodysplasia, esophagogastric varices, polyps, malignancy and Mallory-Weiss syndrome. Although uncommon, migration or erosion of foreign bodies, such as angiographic coils, must be kept in the differential for patients with this history.

CASE DESCRIPTION

A 26-year-old non-smoking female presented after one episode of hematemesis and pre-syncope. While being evaluated in the emergency department she had an episode of large volume hematochezia. Upon arrival her blood pressure was 90/50 (mmHg) and heart rate was 80 (bpm) and blood pressure did not change significantly after standing. Labs were significant for hemoglobin 6.7 (g/dL) (hemoglobin three months earlier was 11.7 (g/dL), hematocrit 19.4%, international normalized ratio 1.2. Platelets were normal. She denied NSAID use, alcohol use and a previous stool antigen was negative for Helicobacter pylori. She had a similar presentation three months earlier at which time an esophagogastroduodenoscopy (EGD) revealed a 1.5-cm deep punched-out duodenal ulcer with adherent clot in the proximal duodenal sweep, erosive duodenitis and gastritis, two pinpoint ulcers in the prepyloric region, and an 8mm clean based duodenal bulb ulcer. This incident three months prior was immediately followed with interventional radiology-guided mesenteric angiography and the use of multiple coils to embolize the anterior division of the pancreaticoduodenal arcade. After this episode she was prescribed pantoprazole 40mg twice daily but admitted to skipping doses. She was asymptomatic between the episode several months ago and this current episode. During the current admission, she underwent EGD, which revealed a metallic coil in the pyloric channel/proximal bulb (See Figures 1) without stigmata of recent bleeding. This coil was thought to be located at the same location as the original bleeding ulcer. Multiple clean-based gastric and duodenal ulcers without stigmata of recent bleeding also were noted during the examination. Due to the proximity of the coil to the duodenal lumen, perforation leading to extravasation of blood into the duodenum was considered a possibility. Surgical removal of the coil was considered but deferred as her bleeding seemed to have temporized. She required 6 units of packed red blood cells for anemia over the following days, but she eventually was discharged in stable condition. The patient's serum gastrin level was 275 (pg/ml) and she was lost to follow up prior to completing further work up for possible Zollinger-Ellison syndrome.

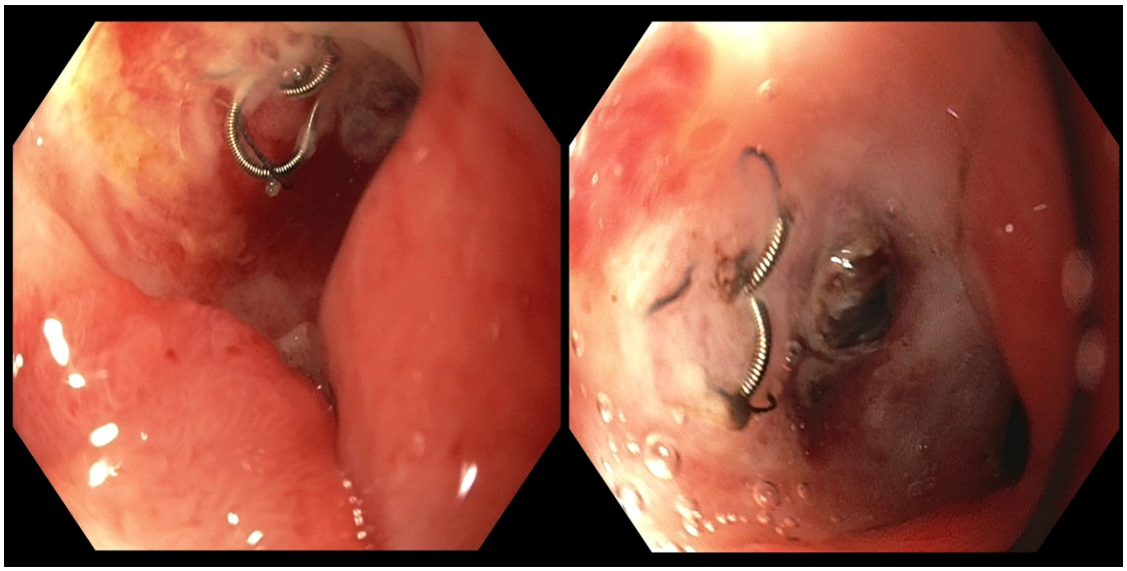

Figure 1. Endoscopic views of pyloric channel/proximal duodenal bulb area

DISCUSSION

This case presents a risk associated with angiographic coil embolization of bleeding duodenal ulcers. Coil migration is expected to occur in up to 3 percentage of cases and migration into the duodenum is even more uncommon, with recent review of literature finding only a few similar published cases [4-6]. To prevent this complication, coil size is estimated to appropriately fit the intended vessel and techniques, such as initially anchoring the coil to the vessel wall, are employed [7]. If the coil had been the nidus of the current bleed, it may have been necessary to surgically remove the coil; however, this was not necessary in this case. It was unfortunate that this patient was lost to follow up prior to secretin stimulation testing being performed as suspicion for Zollinger-Ellison syndrome is high.

CONCLUSION

In patients with history of interventional radiology placed coils, coil migration complications such as upper gastrointestinal bleeding must be high on the differential.

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Conflicts of Interest
None

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