Case Report

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Upper GI endoscopy complication: a case of a post-gastric biopsy bleeding from a visible vessel

Abstract

The rate of complications for upper gastrointestinal (GI) endoscopy is about 1.3-2.4 per 1000 procedures, and these complications range from perforations of the hypopharynx, esophagus, stomach, and duodenum, and include Hypoxia, post-biopsy gastric wall hematomas, and duodenal wall post-polypectomy bleeding. A 71year old female was presented to the emergency room with a complaint of melena and dizziness after undergoing upper GI endoscopy for evaluation of chronic abdominal pain, and was later found to have a hemoglobin of 6.7g/dL. Repeat upper GI endoscopy revealed several linear erosions in the body and antrum of the stomach consistent with prior biopsy sites. One of these sites had a protruding non-bleeding visible vessel, which was treated endoscopically with a hemoclip. The patient was subsequently monitored for 48 hours without any signs of bleeding and with stable hemoglobin.

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Introduction

The diagnostic and therapeutic contribution of Esophago gastroduodenoscopy is well established. Although the procedure is relatively quick and safe, it does have a complication rate of about 1.3-2.4 per 1000 procedures.[1,2] Few studies have examined the serious complications of upper GI endoscopy; these complications may include respiratory compromise and hypoxia, perforations in the hypopharynx, esophagus, stomach and duodenum, post-biopsy gastric and duodenal wall hematomas and bleeding from an ulcer biopsy.[3] In addition, reported complication rates at 30 days are higher for therapeutic studies when compared to diagnostic studies.[1]

Case report

A 71year old woman with a past medical history of hypertension, gastroesophageal reflux disease and chronic epigastric pain was presented to the emergency room with complaint of melena and dizziness. She had undergone upper GI endoscopy and colonoscopy as an outpatient the day prior to presentation. Her upper GI endoscopy revealed a normal esophagus, stomach and duodenum. Biopsies of the gastric body and antrum were taken for evaluation of Helicobacter Pylori. She reported doing well after the procedures and was subsequently discharged from the endoscopy center. She was able to tolerate dinner that evening, but immediately had a large watery melenic stool. Furthermore, the morning prior to presentation, she experienced dizziness and lightheadedness, resulting in her admittance to the emergency room. The patient's hemoglobin was found to be 6.7g/dL, which was down from her baseline of 12.7g/dL in January of 2016. Upper GI endoscopy revealed several linear erosions consistent with prior biopsy sites in the gastric body and antrum. One of these linear lesions had a prominent protruding non-bleeding visible vessel, which was subsequently washed thoroughly and treated with a hemoclip. The patient was then placed on Pantoprazole and monitored for 48hours in the hospital, with steady hemoglobin. In addition, she did not experience any melenic stools while in the hospital, and later was discharged home in stable condition (Figure 1) (Figure 2).

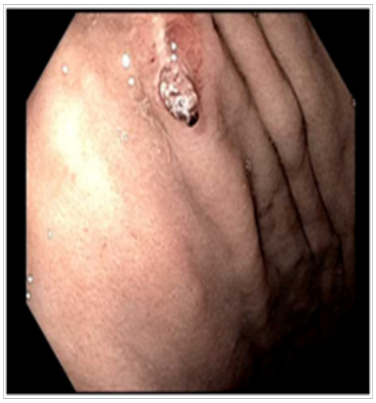

Figure 1

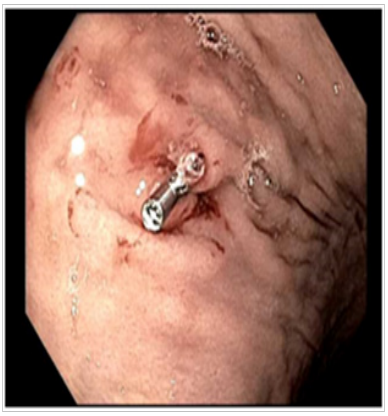

Figure 2

Discussion

The diagnostic and therapeutic benefits of upper GI endoscopy in gastrointestinal disorders have been well established. The procedure is relatively safe, but there are no population-based studies that have

closely examined their complications and management. According to the 1974 study conducted by the American Society of Gastrointestinal Endoscopy,[2] complication rates for upper GI endoscopy are about 1.3 per 1,000 procedures, although rates as high as 2.4 complications per 1,000 procedures have been reported by similar surveys.[4] The varied possibilities of complications reported with upper GI endoscopies are similar to those of colonoscopies and include respiratory complications associated with anesthesia, perforations (hypopharynx, esophagus, stomach or duodenum), post-biopsy hematomas and post-biopsy ulcer bleeding.[3] There are no known classification systems used in reporting post-biopsy bleeding seen in upper GI endoscopy in addition to appropriate treatment modalities that can be utilized. Our patient presented with melena and was found on upper GI endoscopy to have a non-bleeding visible vessel, which would be a Forrest IIA lesion with a rebleeding risk of about 43%. However, Forrest classification system is reserved for ulcer bleeding.[5] Most reports in the literature regarding risk of rebleeding, need for therapeutic interventions have been suggested for ulcer bleeding. Therefore, the literature is lacking in both classification of post-biopsy bleeding lesions, risk of rebleeding, and ultimately therapeutic interventions needed to reduce the risk of rebleeding. Due to the significant drop in hemoglobin, melena and symptoms of dizziness found in our patient, we treated the visible vessel with one hemoclip, which maintained hemostasis, resulting in a subsequent discharged in stable condition.

Acknowledgements

None.

Conflict of interest

The author declares no conflict of interest.

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