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Case Report

Internal Medicine Section

Endoscopic findings of Oozing Gastric Hamartomatous Polyps: A Rare Cause of Upper Gastrointestinal Bleeding

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ABSTRACT

Gastric hamartomatous polyps are infrequent benign lesions of the stomach, typically discovered incidentally during endoscopy. Upper Gastrointestinal Bleeding (UGIB) is a commonly encountered medical emergency, often caused by peptic ulcers, esophageal varices, or gastritis. However, in some rare instances, the bleeding source may be attributed to gastric hamartomatous polyps. The authors here present a case of a 64-year-old male patient who presented with generalised weakness, dizziness, loss of appetite, and constipation. Laboratory tests revealed microcytic hypochromic anaemia. Stool for occult blood was positive. Initial evaluation, including laboratory tests and imaging studies, was inconclusive for the source of the UGIB. Therefore, endoscopy was performed, which revealed multiple small sessile polyps of approximately 0.5-1 cm in the body of the stomach along the greater curvature, which were oozing blood spontaneously. Histopathological examination of the polyps revealed their hamartomatous nature. The patient was diagnosed as a case of chronic constipation with microcytic hypochromic anaemia with hamartomatous gastric polyp. The bleeding was successfully controlled through endotherapy with endoscopic injection of epinephrine (1:10,000) injected at the site of the ooze. Due to the rarity of this condition, the diagnosis was challenging and required a high index of suspicion. Physicians should consider this entity in the differential diagnosis of UGIB. This case highlights the importance of considering hamartomatous polyps as a potential source of UGIB and demonstrates the efficacy of endoscopic treatment for both diagnosis and management. Awareness of this rare entity can aid in prompt recognition and appropriate therapeutic interventions to prevent potential life-threatening complications.

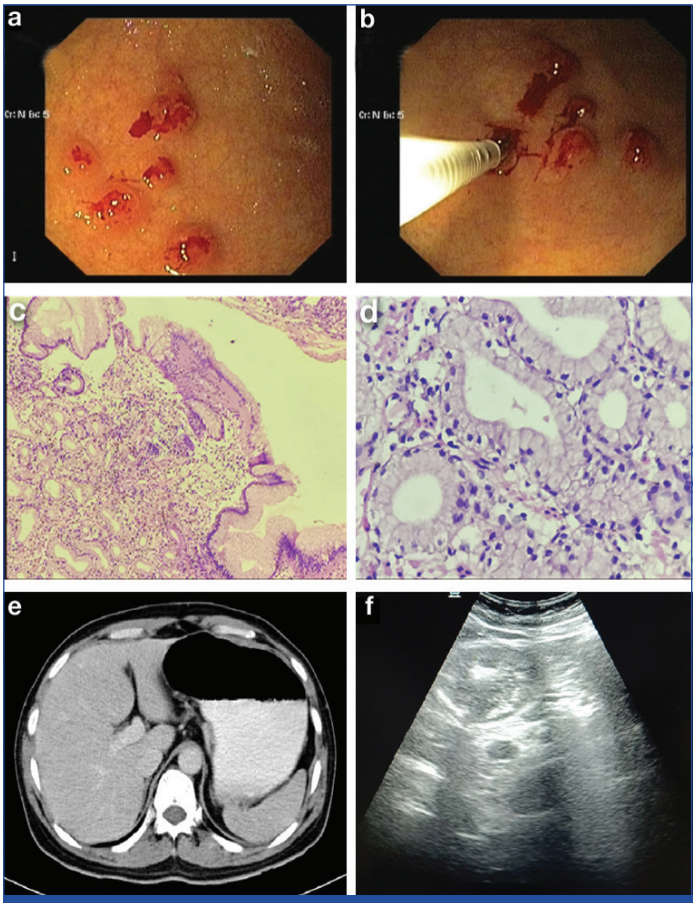
Keywords: Benign, Endotherapy, Microcytic hypochromic anaemia

CASE REPORT

A 64-year-old male presented to the gastroenterology Outpatient Department (OPD) with complaints of generalised weakness, dizziness, and loss of appetite for one month. He had a history of constipation, i.e., fewer than three bowel movements per week for one year, and he also experienced black, tarry stools once or twice a week for the last three months. On examination, he was found to have tachycardia (heart rate - 102/min), tachypnea (respiration rate - 24/min), and pallor. At this point, a provisional diagnosis of chronic constipation with microcytic hypochromic anaemia was made, and differential diagnoses of anaemia with peptic ulcer disease, anaemia with Dieulafoy's lesion, anaemia with gastric carcinoma, and anaemia with bleeding polyps were considered.

Laboratory tests revealed microcytic hypochromic anaemia (Haemoglobin - 9.2 g/dL). Stool occult blood test was positive. He was scheduled to undergo endoscopy and colonoscopy to identify the cause of anaemia. Endoscopy revealed multiple small sessile polyps measuring approximately 0.5-1 cm in the body of the stomach along the greater curvature, which were spontaneously oozing blood [Table/Fig-1a,b]. Biopsy of these polyps was stained with Haematoxylin and Eosin stain. The histopathological pictures depicted in [Table/Fig-1c,d] showed an eroded mucosal surface with the underlying submucosa showing dilated crypts and glands, edematous stroma, and a mixed inflammatory infiltrate. The histopathological features were suggestive of hamartomatous polyps of the stomach.

Colonoscopy was normal. Radiological imaging (Contrast-Enhanced Computed Tomography (CECT) abdomen) and abdominal ultrasonography were inconclusive [Table/Fig-1e,f]. The final diagnosis was chronic constipation with microcytic hypochromic



[Table/Fig-1]: a,b) Multiple small sessile spontaneously blood oozing gastric Hamartomata's polyps; c,d) Haematoxylin and Eosin stain of biopsy specimen (c-low power view: 10x and d-high-power view: 40x) suggesting features of "Hamartomata's polyp of stomach"; e,f) Radiological investigation showing normal CECT abdomen (E) and normal ultrasonography of abdomen (F).

anaemia with a hamartomatous gastric polyp. Endotherapy was performed, and endoscopic injection of epinephrine (1:10,000) was administered at the site of bleeding, successfully achieving hemostasis. The patient was then discharged on a short course of antifibrinolytic drugs (tranexamic acid 500 mg thrice daily for five days), proton-pump inhibitors (Esomeprazole 40 mg twice daily for six weeks), stool softeners (Polyethylene Glycol 30 mL at bedtime for six weeks), long-term iron supplement (Ferrous sulfate 325 mg tablet for six weeks), and multivitamins. After six weeks, the patient was followed-up and found to be symptomatically better. He reported no further black stools, and his haemoglobin levels started to gradually increase (Haemoglobin - 10.2 g/dL).

DISCUSSION

Gastric polyps are commonly observed during endoscopies performed for various indications, with an incidence ranging from 1% to 6.35% [1,2]. However, they are rarely symptomatic. When symptoms do occur, they can manifest as obstruction, epigastric pain, anaemia, and bleeding [3]. Identifying the type of polyp based on endoscopy alone is challenging; histopathological characterisation is necessary. Adenomas, hyperplastic polyps, and fundic gland polyps are commonly encountered types of gastric polyps. However, hamartomatous polyps of the stomach are an extremely rare entity, accounting for less than 1% of cases [2,4-6]. These polyps are often associated with syndromes like Peutz-Jeghers syndrome or juvenile polyposis syndrome but can also occur in isolation [7]. They represent disorganised growth of tissue native to the site [8].

Gastric hamartomatous polyps can occur in individuals of any age but are more commonly found in middle-aged adults. While most gastric hamartomatous polyps are small and asymptomatic, there have been reported cases where these polyps caused Upper Gastrointestinal Bleeding (UGIB). Bleeding can occur due to various mechanisms, such as erosions or ulcers on the polyp's surface or fragile blood vessels within the polyp. Since gastric hamartomatous polyps causing bleeding are rare, it is important to consider other potential causes of UGIB, such as peptic ulcers, gastritis, oesophageal varices, and malignancies, before attributing it to these polyps.

The treatment of gastric hamartomatous polyps depends on various factors, including the size and number of polyps, symptoms (if any), and the presence of bleeding or other complications. Asymptomatic small polyps may not require any specific treatment other than periodic surveillance. However, symptomatic or larger polyps, especially those causing bleeding, may require intervention. Here are some common treatment options for gastric hamartomatous polyps:

1. **Endoscopic removal:** For larger or bleeding polyps, endoscopic removal (polypectomy) is often the preferred treatment. This procedure involves using an endoscope and specialised instruments to remove the polyp. Endoscopic polypectomy is usually safe and effective for the majority of gastric hamartomatous polyps [9].
2. **Endoscopic Mucosal Resection (EMR):** EMR is another endoscopic technique used for larger polyps that are difficult to remove with standard polypectomy. In EMR, a larger section of the mucosal layer is removed to ensure complete excision of the polyp [7].
3. **Surgery:** In rare cases where endoscopic removal is not feasible or when there are concerns about malignancy, surgical resection of the affected part of the stomach may be considered. This is usually reserved for larger or multiple polyps or when there are other complicating factors [10].
- For asymptomatic polyps that are small, conservative management with periodic surveillance may be the approach taken.

It's important to note that the treatment approach should be individualised based on the patient's specific clinical situation. Factors such as the patient's overall health, the presence of other medical conditions, and the risk of complications influence the decision-making process.

Although gastric hamartomas are benign, there is a small risk that they could turn into cancer. The risk of malignant transformation increases when associated with polyposis syndromes like Peutz-Jeghers Syndrome [11] and in the case of gastric hamartomatous inverted polyps [12]. Therefore, they are typically removed during an endoscopy, and a biopsy is performed to confirm that they are not cancerous [7]. When gastric hamartomas are encountered, screening of patients for polyps in the rest of the gastrointestinal tract and family screening is recommended [8].

In the present case, the authors encountered an extremely rare cause of upper gastrointestinal bleeding, namely gastric hamartomatous polyps. These polyps were found exclusively in the stomach and were spontaneously oozing blood in the current case. (Colonoscopy and CECT abdomen were performed, ruling out the possibility of polyps in other locations). The authors performed endoscopic therapy on this patient and successfully achieved hemostasis. After a six-week follow-up, the patient showed clinical improvement, and their hemoglobin levels began to increase gradually. As the polyps were small, polyp resection was not performed; however, the patient was advised to undergo regular endoscopic surveillance for the polyp.

CONCLUSION(S)

Gastric hamartomas are extremely rare polyps with considerable variation in clinical presentation, endoscopic, and histological characteristics, as well as genetic alterations. Clinicians and pathologists should consider polyposis syndrome when encountering multiple polyps and conduct appropriate screening. Although these polyps carry a low risk of malignant transformation, those associated with polyposis syndrome and gastric hamartomatous inverted polyps have a considerably higher risk of developing malignancy. Teamwork between a gastroenterologists, pathologists, and genetic experts is necessary for early diagnosis and timely intervention to ensure the overall well-being of patients.

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