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Watermelon Stomach: A Rare Cause of Upper Gastrointestinal Bleed.

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ABSTRACT

Iron deficiency anemia secondary to gastrointestinal bleeding is very common in the elderly, and has to be managed with utmost care. Gastric antral vascular ectasia (GAVE) is a rare cause of gastrointestinal bleeding. Although rare, it can be quite dramatic in its presentation and prognosis. The authors report a case of GAVE presenting with upper gastrointestinal bleed and severe anaemia in a 64-year-old female patient.
Keywords: Endoscopy, GAVE, Anaemia, Iron deficiency

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INTRODUCTION

Gastrointestinal (GI) bleeding is a frequent symptom seen in medical and surgical patients worldwide, and it often leads to hospitalize the patient almost immediately as the symptom sets in. The incidence of upper gastrointestinal (UGI) bleed is approximately 100 to 150 per 100,000 adults per year. It has a very high mortality rate of about 6 to 14% of the patients who present with this symptom. The most common aetiological factors for UGI bleeds include duodenal ulcers, gastric ulcers and oesophageal ulcers [1]. Rare causes include NSAID-induced ulcerations, Mallory-Weiss tears and neoplasms including gastric carcinoma [2].

Gastric Antral Vascular Ectasia (GAVE) is a rare cause of non-variceal UGI bleed, that was first described in the early 1950s. The erythematous longitudinal appearance of the ectatic vessels in the rugal folds of the stomach (commonly in the antrum) under gastrointestinal endoscopy has given the disease the more popular name of “Watermelon stomach”. GAVE can present in two forms: the classic type, and the punctate type [3].

Although UGI bleed is a common presentation of GAVE, the diagnosis is often delayed, as the physician or the surgeon has to exclude other commoner causes for the same. Here, the authors present a case of GAVE that was diagnosed and managed successfully as per recommendations.

Case Report

A 64-year-old female was admitted to our hospital with history of easy fatiguability and exertional dyspnoea for the past 3 months, and pedal oedema for the past 2 months. There was no history of chest pain, syncope, decreased urine output, bowel disturbances, haemetemesis or malena. The patient was a known case of hypothyroidism, on regular therapy with thyroxine. On examination, she had severe pallor and bilateral pitting pedal oedema. Systemic examination was normal.

Laboratory investigations revealed low haemoglobin (5 g/dL), with the peripheral blood smear showing a microcytic hypochromic picture. Iron profile (Serum iron – 155 mcg/dL, Total iron binding capacity – 331 mcg/dL, Serum ferritin – 119.9 ng/mL) was well within normal limits. Stool samples were positive for occult blood. Hepatic and renal function tests were normal. Thyroid profile, chest X-ray and ultrasound of abdomen were all normal. Upper GI endoscopy was done to look for the source of bleeding. The test revealed a characteristic “Watermelon stomach” (as shown in Figure 1), classical of gastric antral vascular ectasia (GAVE). Colonoscopy was normal.

Figure 1: UGI scopy showing a characteristic "Watermelon stomach" appearance in GAVE

The patient was then treated with blood transfusions (for her anaemic status) and Argon plasma coagulation (depicted in Figure 2) for vascular ectasia.

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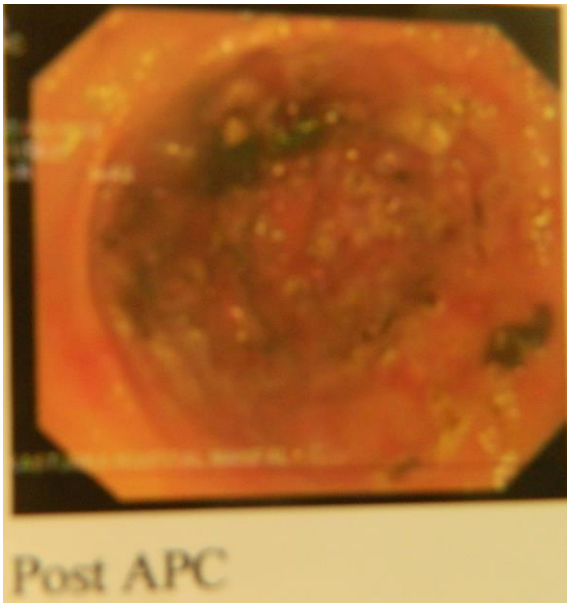

Figure 2: Repeat UGI scopy after Argon Plasma Coagulation

Haemoglobin level at the time of discharge was 10.6 g/dL. After 3 months of follow-up, she was symptomatically better, and haemoglobin evaluation repeated was 10.4 g/dL.

DISCUSSION

GAVE usually presents as a case of chronic iron deficiency anaemia. But, it may also present as a case of acute UGI bleed [4]. In a study conducted by Gostout et al, it was shown that females are predominantly affected with GAVE, and that most of them presented with transfusion-dependent anaemic status, as seen in this particular case as well [5].

Histopathological reports usually show ectasia of the vessels, although this feature is not pathognomonic of the disease. Spindle cell proliferation and focal thrombosis are also seen under the microscope [6]. Cirrhosis of liver is said to be associated with as high as 30% of the cases of GAVE [7]. Also, Gostout et al. further reported that connective tissue disorders are found in 62% of GAVE cases[5].

Management protocol based on several studies available online includes management of the anaemic status (with blood products and fluids), followed by Argon Plasma Coagulation (APC). APC is said to be effective in 60 to 80% of cases, and is also a safe and reliable modality of therapy [8]. Another option is NdYAG LASER therapy [9].

However, whether GAVE is a separate entity by itself, or if it is just a presentation of chronic anaemia is still a mystery.

CONCLUSION

To conclude, GAVE, though a rare cause of UGI bleed, has to be kept in the list of differential diagnoses when investigating a patient. The characteristic watermelon appearance on UGI scopy usually helps in clinching the diagnosis. Hence, familiarization with the endoscopy findings and the management of this condition is essential for optimal care for such patients.

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