Multiple Gastric Carcinoids: Uncommon Cause of Recurrent Melena, A Case Report

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CASE REPORT

ABSTRACT
Carcinoid tumors are neuroendocrine tumors that are not commonly originate from the stomach. The authors reported a 41 year old female patient presented with recurrent attacks of melena. Diagnostic upper endoscopy revealed three ovoid corporal masses proved by histopathology to be gastric carcinoids and were successfully removed by subtotal gastrectomy. Although rare, gastric carcinoids should not be overlooked while evaluating cases of recurrent melena.

INTRODUCTION
Carcinoid tumors are neuroendocrine tumors that originate from the embryonic neural crest. The prominent feature of carcinoid tumors is the production of multiple hormones. The majorities of carcinoid tumors originates in the gastrointestinal tract (GIT), and are usually discovered incidentally. Gastric carcinoid tumors are rare, constituting less than 1% of gastric neoplasms. Gastric carcinoids arise from endocrine cells in the gastric mucosa. There are three types of gastric carcinoids. Type I is associated with chronic atrophic gastritis type A. Type II is seen in Zollinger-Ellison syndrome/multiple endocrine neoplasia type I (MEN-1) syndrome. Type III is a sporadic tumor.

Melena refers to bleeding from the upper GIT proximal to the ligament of Treitz in the form of black, tarry, offensive and glistening stool. Carcinoid tumors of the upper GIT when invade the overlying mucosa and erode through a blood vessel may cause bleeding within the lumen of the GIT and presented clinically as melena.

CASE REPORT
A 41 year old female patient presented with recurrent attacks of melena. The patient when presented to the emergency unit due to the bleeding episode was fully conscious, blood pressure 100/60, pulse rate of 96, and she was pale. The laboratory parameters were normal except for hemoglobin that was 9.1 gm%. She gave history of previous 2 attacks of melena, that was treated conservatively and she refused to perform diagnostic upper GIT endoscopy for it. Diagnostic upper endoscopy (for the current bleeding episode) showed three ovoid mucosal swellings in the corpus of the stomach with umbilicated and ulcerated surface and a visible vessel was seen inside it (figure 1). Multiple biopsies were taken for histopathology that showed carcinoid tumor invading the gastric mucosa and submucosa, associated with mild atrophic gastritis and there was no lymphatic invasion nor intestinal metaplasia. The patient was examined by abdominal ultrasound and triphasic multislice CT to evaluate the gastric wall invasion, nodal and liver metastases. No extramural spread was confirmed. The patient was successfully treated by subtotal gastrectomy. At gross pathologic evaluation of the excised stomach, multiple carcinoid tumors with diameters ranging from 1.0 to 3.0 cm were seen. Microscopic examination of the proximal, distal, and radial margins of the stomach were tumor free, and regional lymph nodes were not invaded. The patient was candidate for monthly follow up by clinical examination, full laboratory assessment and abdominal ultrasound examination and three monthly by upper endoscopic and CT examinations for one year.
therapy or dietary modification to acidify the stomach. If medical treatment versus surgical treatment. Medical treatment includes octreotide to acidify the stomach. If medical treatment versus surgical treatment. Medical treatment includes octreotide and skin metastases. The lesions in this case were flat and ulcerated, with hypergastrinemia. Prognosis of the pancreas or small intestine. Type II gastric carcinoids patients suffer from repeated GIT bleeding and hypergastrinemia. Diagnosis is intermediate, between types I and type III. Type III gastric lesions represent about 20% of gastric carcinoids and are not associated with hypergastrinemia. Forty percent occur in the antpyloric area when discovered; they are usually single tumor more than 2 cm. They can cause either a classic syndrome of facial flushing, abdominal cramps, diarrhea, left-sided endocardial fibrosis, and 24 h urinary 5-HIAA more than 10 mg, or an atypical carcinoid syndrome associated with vasoactive substances and polypeptide hormone production. Nodal metastasis is reported in 55% of patients and liver metastases, in 25% of patients. Five-year survival is only 50%.

Enterochromaffin-like cells, the main endocrine cells in the gastric fundus, are sensitive to gastrin and give rise to type I gastric carcinoid tumors. Patients with type I gastric carcinoids may present with abdominal pain, bleeding, diarrhea, and vomiting. However, up to one-third of patients may be asymptomatic. Our case seems to be type I gastric carcinoid, due to the associated gastritis, lack of endocromal manifestations and the lack of nodal and liver metastases. The bleeding episodes reported in this case are directly related to invasion of overlying gastric mucosa and the presence of blood vessels underneath the ulceration site. Lack of the typical carcinoid syndrome should never exclude the carcinoid tumors; such tumors as reported in this case may present with manifestations that mimic other gastric disorders. Cases with upper GIT bleeding should be endoscopic.

Although, endoscopy is an invasive maneuver yet it helps to confirm the diagnosis and achieve a variety of therapeutic approaches in the same setting. The lesions in this case were flat and ulcerated, endoscopic mucosal resection was not feasible and in addition the presence of visible vessels beneath the ulcerated surface raise the risk of bleeding, and that is why we decided to operate in this patient. Endoscopic examination is a horror for some patients and this may delay the diagnosis and that is why verbal reassurance is required before the procedure. Typically that was happened with this case, she refused to be endoscoped for her previous two attacks of melena and after oral discussion about the steps, benefits and risks of the procedure she agreed to be endoscoped. Fortunately the patient was diagnosed before occurrence of extra-gastric spread, a sequel if occurred would complicate the management plan and subsequently her survival. No consensus has been reached regarding the role of medical treatment versus surgical treatment. Medical treatment includes octreotide therapy or dietary modification to acidify the stomach. If medical treatment is chosen, patients require close endoscopic surveillance. For tumors larger than 1 cm, multicentric tumors, or recurrent tumors, laparoscopic antrectomy is most effective and leads to a reduction of gastrin levels and regression of carcinoid tumors. Our case was treated by subtotal gastrectomy due to causes mentioned before. No postoperative recurrence was observed through the follow up period (30 months in this case). Close follow up would pick up cases with tumor recurrence and potentially improve the patient survival.

REFERENCES


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