

Hematemesis Secondary to Isolated Gastric Metastasis from Ovarian Carcinoma

ABSTRACT

A 49-year-old female presented with two episodes of hematemesis. Six years ago, she had undergone a total hysterectomy with bilateral salpingo-oophorectomy, omentectomy, and pelvic lymph node dissection for a serous papillary carcinoma of the ovary (FIGO Stage IIA) followed by adjuvant chemotherapy. On regular follow-up, she remained disease free, until presentation. Her hemoglobin was 9.1 g/dl and CA-125 level was elevated – 128 u/ml. Gastroscopy revealed an ulcerated submucosal tumor in the antrum measuring 5 cm × 4 cm with no e/o active bleeding and minimal altered blood in stomach. Biopsy showed scanty metastatic tumor deposits from ovarian cancer. Immunohistochemistry with cytokeratin and paired box 8 was difficult to interpret due to depletion of the focus. Computed tomography scan of chest, abdomen, and pelvis showed a large, well-defined heterogeneously enhancing serosal mass lesion in the antrum of the stomach with soft calcification within, with no ascites. Few para-aortic lymph nodes were enlarged. No other organ involvement was observed. She received chemotherapy and is currently on close follow-up. Isolated gastric metastasis from an ovarian cancer is extremely rare and most often occur in advanced stage with synchronous lesions in the peritoneum. Histologically serous carcinoma is the most common variety. Clinicians should consider that in patients with submucosal tumor and history of ovarian carcinoma, the gastric lesion may be metastatic and not a primary gastric carcinoma.

Key words: Hematemesis, Metastasis, Ovarian Carcinoma, Submucosal Gastric Tumor

INTRODUCTION

A 49-year-old female presented to the emergency clinic with two episodes of hematemesis 12 h ago. She had mild epigastric pain with no radiation to the back. Her first vomitus was blood stained without retching. She had no prior history of dyspepsia, heartburn, gastrointestinal bleed, nonsteroidal anti-inflammatory, or antiplatelet drug use. Six years ago, she was treated for serous papillary carcinoma of the ovary. She underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy, omentectomy, and pelvic lymph node dissection followed by adjuvant chemotherapy. She was on regular follow-up which revealed no clinical or biochemical evidence of any recurrence post-treatment.

On examination, she was alert, afebrile, and hemodynamically stable with mild epigastric tenderness. Her laboratory results showed anemia (hemoglobin – 10.1 g/dl), iron deficiency (ferritin – 14 ng/ml and iron saturation 9%), mild leukocytosis (white blood cell count – 12,600), elevated erythrocyte sedimentation rate – 56, and elevated C-reactive protein – 34. Patient's CA-125 level was elevated – 128 μ/ml (normal – <35 μ/ml).

An upper gastrointestinal endoscopy showed minimal altered blood in the stomach with an ulcerated submucosal tumor at the junction of distal body and antrum measuring 5 cm × 4 cm [Figure 1]. Endoscopic

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biopsies showed mitotically active nuclei with prominent nucleoli and occasional psammomatous calcification surrounded by clear space consistent with lymphovascular emboli consistent with scanty metastatic tumor deposits from a known primary in the ovary [Figure 2]. Immunohistochemistry with cytokeratin and paired box 8 (Pax8) was difficult to interpret due to depletion of the focus. A computed tomography scan of the chest, abdomen, and pelvis showed a large, well-defined heterogeneously enhancing serosal mass lesion straddled between distal body and antrum of the stomach with soft calcification within [Figure 3a and b].

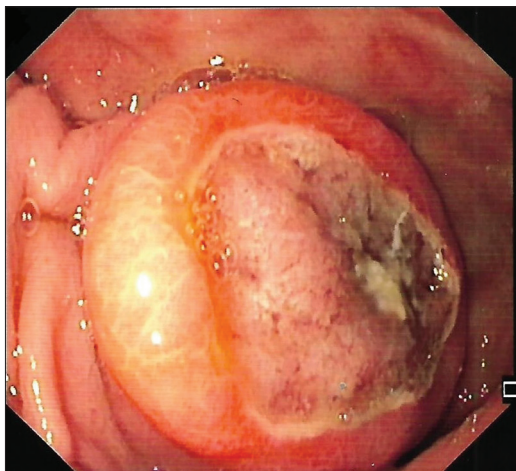


Figure 1: Upper gastrointestinal endoscopy showing minimal altered blood in the stomach with an ulcerated submucosal tumor at the junction of distal body and antrum measuring 5 cm × 4 cm

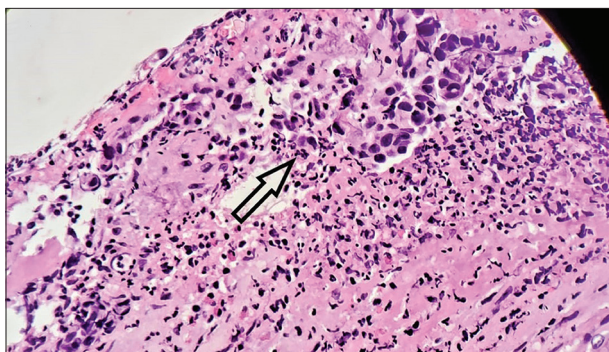


Figure 2: Biopsy from the ulcerated submucosal tumor showing mitotically active nuclei with prominent nucleoli and occasional psammomatous calcification surrounded by clear space consistent with lymphovascular emboli suggesting metastatic tumor deposits. Tumor histology was comparable with the previous ovarian cancer histology

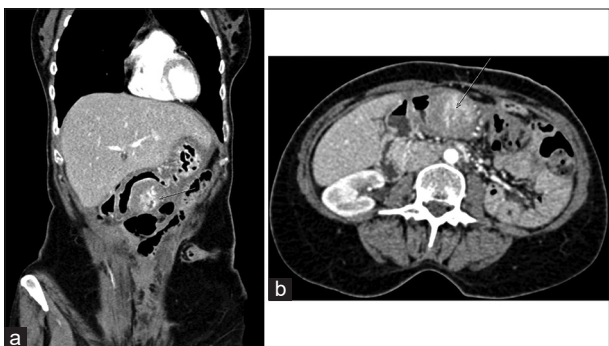


Figure 3: (a and b) A computed tomography scan of the chest, abdomen, and pelvis showing a large, well-defined heterogeneously enhancing serosal mass lesion straddled between distal body and antrum of the stomach with soft calcification within

DISCUSSION

Gastric metastasis presenting with hematemesis is a rare clinical event.^[1] Gastric metastasis occurs occasionally from breast, lung, esophagus, renal cell carcinoma, and malignant melanoma.^[2] Isolated gastric metastasis from an ovarian cancer is extremely rare with less than 20 case reports in literature.^[3] Metastasis occurs during the course of the disease in one-third of patients and is often synchronous.^[4,5] Spread mostly occurs along the peritoneal surface. Median interval to metastasis is 44 months and median survival after distant metastasis is 12–30 months.^[3,6] Histologically serous carcinoma is the most common variety. Risk factors for metastasis include higher stage at diagnosis, higher histological grade, and lymph node involvement at the time of diagnosis.^[4] Immunohistochemically positive receptor evaluation for PAX8, Wilms tumor 1, and estrogen receptor may help in the diagnosis of gastric metastasis from ovarian tumor.^[7] In our patient, the biopsy material was obtained endoscopically from an ulcerated GIST with recent episode of upper gastrointestinal bleed. Immunohistochemistry with cytokeratin and PAX8 was asked for but depletion of the focus prevented its interpretation.

Our patient with FIGO Stage IIA ovarian cancer after initial treatment was in clinical, biochemical, and radiological remission for 6 years. Gastric metastasis from an ovarian cancer most often occurs in advanced stage with synchronous lesions in the peritoneum with or without ascites. Our patient had isolated gastric metastasis with an upper gastrointestinal bleed after a long disease-free interval. This is a rare form of presentation.

Gastric metastasis without peritoneal seeding suggests a hematogenous or lymphatic spread. Histological evidence of lymphovascular emboli in the absence of peritoneal disease suggests spread by lymphatic route probably from para-aortic lymph node in our patient.^[8] Although cytoreductive surgery is recommended when possible, at present, it is not clear which factors influence the survival after gastric metastasis. As she refused surgery, she was treated with chemotherapy and is under observation for the past 1 year. Time interval between the diagnosis of ovarian cancer and the documentation of distant metastasis is the most important factor for prognosis.^[4]

CONCLUSION

Clinicians should suspect gastric metastasis from ovary in patients with submucosal gastric tumor with a previous history of ovarian cancer. Chemotherapy remains a viable option for them if they refuse surgery.

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