



GASTRIC CARCINOMA IN PREGNANCY PRESENTING WITH HYPEREMESIS AND DEEP VEIN THROMBOSIS: A CASE REPORT

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ABSTRACT

We present a case report of a 31 years primigravida with 29 weeks of gestation with deep vein thrombosis (DVT) and hyperemesis. Endoscopy was done in view of intractable vomiting and carcinoma of gastro-oesophageal junction was diagnosed. An elective preterm caesarean section at 34 weeks followed by feeding jejunostomy and axillary lymphnode biopsy was done. Postpartum, palliative chemotherapy was given. Unfortunately, she succumbed three months after diagnosis. Pregnancy-associated gastric cancer is extremely rare. It is generally diagnosed at an advanced stage due to symptoms mimicking normal pregnancy. Gastric cancer in pregnancy should be considered in the differential diagnosis of wasting syndrome and intractable vomiting. There should be a low threshold for upper gastrointestinal endoscopy in such cases. In women with DVT in pregnancy, differential diagnosis should include malignancy and active search for the same should be done to diagnose it in early stages which can lead to better prognosis.

KEYWORDS : Hyperemesis, Deep Vein Thrombosis (DVT), Carcinoma Stomach in pregnancy, Positron Emission Tomography (PET) scan

CASE

A 31 year-old primigravida was referred at 29 weeks of gestation with intractable hyperemesis and painful swelling of the left lower limb. She had conceived spontaneously and had excessive vomiting from the first trimester, warranting hospitalization several times. There were 6 to 7 episodes of non-projectile, non-bilious vomiting everyday resulting in a 6-kilogram weight loss. She did not have significant abdominal pain or back pain. There was no history of oliguria. The swelling in the left lower limb was noticed a week prior to presentation and associated with pain radiating to the foot. She was not a smoker or alcoholic and there was no past history of venous thromboembolism or family history of malignancy. She weighed 48 kg and her body mass index was 18.75 kg/m². Her pulse rate and blood pressure were normal and she appeared dehydrated. The left lower limb was swollen and tender with petechiae on the anterior aspect of the thigh. It measured 11 cm more than the right at the mid-thigh level. There were no obvious varicosities.

Laboratory investigations revealed normal TSH, mild anaemia, hypokalaemia and hypoalbuminaemia. Ultrasound of the abdomen was unremarkable. Venous Doppler of the left lower limb confirmed the clinical suspicion of deep vein thrombosis, involving the superficial femoral, popliteal, posterior and anterior tibial veins, extending to the sapheno femoral junction and the external iliac vein.

She was treated with intravenous fluids, antacids, antiemetics, multivitamins and potassium supplements. She received 40 mg of low molecular weight heparin twice a day. Intravenous steroids were administered and she was commenced on total parenteral nutrition. Upper gastrointestinal endoscopy done in view of unremitting symptoms revealed a growth at the lower oesophageal sphincter extending to the cardia of the stomach (Figures 1-5). A biopsy from the lesion disclosed poorly differentiated signet ring cell adenocarcinoma on histology. Ultrasound breast done for evaluation of mastalgia revealed bilateral dilated ducts with internal echoes, and bilateral axillary and left supraclavicular lymphadenopathy.

The plan of management was formulated by a

multidisciplinary team comprising the obstetrician, physician, intensive care specialists and oncologist. Antenatal corticosteroids were administered for fetal lung maturity. A baby boy weighing 1560g with a 5-minute Apgar score of 7 was delivered by elective Caesarean section under general anaesthesia at 34 weeks of gestation. Concomitant feeding jejunostomy was performed.

Postoperative PET scan was suggestive of carcinoma of the stomach involving cardia, fundus and lower oesophagus with aortocaval, celiac and bilateral axillary lymph nodes; and mild left pleural effusion with basal atelectasis. Subsequently, she developed breast metastases and received 3 cycles of palliative chemotherapy with FOLFOX (folinic acid, fluorouracil and oxaliplatin) regime but developed adverse effects resulting in discontinuation of treatment. Two months later, she developed massive pleural effusion with severe dyspnoea and sustained cardiac arrest from which she could not be revived.

FIGURES & TABLES



Figure 1 : Endoscopy Image of Stomach – Fundus



Figure II: Endoscopy Image of Stomach - Fundus

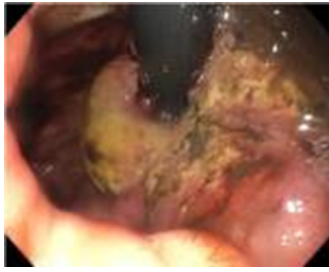


Figure III: Endoscopy Image of Stomach Fundus



Figure IV: Endoscopy Image of Gastro-oesophageal Junction

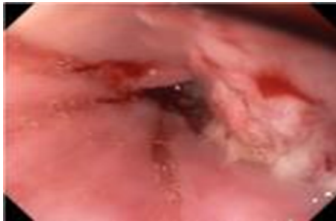


Figure V: Endoscopy Image of Lower Oesophagus

DISCUSSION

Gastric carcinoma is rare in patients younger than 40 years of age and even rarer during pregnancy. The incidence ranges from 0.026 to 0.1% depending on the geographical location.^{1,2,4} Gastric carcinoma in young individuals tends to be poorly differentiated, with an overall poor prognosis.^{1,2,4} Symptoms do not appear early and are often similar to common complaints during pregnancy such as vomiting and dyspepsia, leading to delay in diagnosis.^{1,2}

Helicobacter pylori infection is one of the risk factors for gastric cancer and is more prevalent in pregnant than non-pregnant women (26.6% versus 11%).^{1,2} Secretion of gastric acid decreases during pregnancy, while the production of gastric mucus increases. Histaminase produced by the placenta deactivates histamine function; therefore, the patient does not exhibit deterioration of symptoms caused by a cancerous ulcer. The oestrogenic environment appears to favour the growth of neoplastic cells as evidenced by positive oestrogen receptor status in 55.8% of gastric tumours.³ Further the spread of cancer can be facilitated by the increased circulatory flow that occurs during pregnancy.²

A Japanese review of 61 patients with gastric cancer diagnosed during pregnancy reported that only 47.5% of patients underwent surgery. The patients who underwent gastrectomy had a high incidence of in-hospital death (22.7%) and a poor prognosis with a 3-year survival rate of 21.1%.¹ Ueo et al recommended that surgical treatment for gastric cancer should be performed immediately when diagnosed prior to 24 weeks of gestation whereas obstetric treatment followed by surgical intervention is advisable (to guarantee the infant to be viable) when diagnosed at or beyond 30 weeks. For those diagnosed between 25 and 29 weeks of gestation, the decision should depend on the stage of the gastric cancer as well as the resectability of the tumour.²

Chemotherapy for unresectable gastric cancer during pregnancy should be administered as soon as possible after diagnosis. The drug regime is the same as in the non-pregnant population. In the first trimester, it increases the risk of spontaneous abortion, fetal death, and major malformations and the risk is more with polytherapy than monotherapy (25% versus 7 to 17%).³ Termination of pregnancy may be offered after discussion of the risks and benefits. In the second trimester, there are no major differences in the incidence of malformations between infants from normal pregnancies and those from pregnancies in which chemotherapy was administered.³

In a retrospective cohort study, it was reported that the risk of venous thromboembolism was increased among pregnant patients with haematological malignancies and gynaecological cancers.⁶ The case under discussion could possibly be the first report of gastric cancer presenting with DVT in pregnancy as literature review did not reveal earlier publications of this complication. This patient did not have any of the traditional risk factors for gastric cancer, indicating the importance of an early recourse to upper gastrointestinal endoscopy in pregnant women with intractable vomiting. Further, the differential diagnosis of DVT in pregnancy should include malignancy and prompt meticulous investigation.

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