Advanced Disseminated Gastric Carcinoma in Pregnancy

V H Chong, C C Lim

ABSTRACT

Gastric cancers associated with pregnancy are rare and often diagnosed at advanced stages where curative therapies are not possible. The outcomes have generally been very poor with death occurring within months of diagnosis. Suspicion and early endoscopy are necessary for early diagnosis. We herein report a case of advanced disseminated gastric cancer presenting in the third trimester with pre-eclampsia and death occurring less than a month after diagnosis.

Keyword: gastric carcinoma, pregnancy

Singapore Med J 2003 Vol 44(9):471-472

INTRODUCTION

Gastric cancers are rare in pregnancy and the outcomes have generally been poor[1-3]. Deaths usually follow within months of diagnosis. Gastric cancers in pregnancy are usually diagnosed in the advanced stages where any curative therapies are not possible. Delay in diagnosis has been attributed to lack of suspicion due to their rarity, presence of non-specific gastrointestinal symptoms in pregnancy and reluctance of physicians to undertake any invasive investigations such as endoscopy due to the risk to pregnancy. The pathogenesis of this condition is not known. In addition to environmental and genetic factors, pregnancy itself may be a factor. We report a case of a 24-year-old woman who presented in her third trimester with pre-eclampsia secondary to advanced metastatic gastric cancer. Her condition deteriorated rapidly and she died less than a month after diagnosis. Suspicion and early diagnosis by means of endoscopy is the only way of dealing with this condition.

CASE REPORT

A 24-year-old Malay lady, gravida-8 and para-5, presented to the obstetrics department with pre eclampsia. She was in her third trimester at 35th week and three days. She previously had one miscarriage and one termination of pregnancy. She had no significant past medical history. The current pregnancy went well until the thirty-fifth week. She did not report any gastrointestinal symptoms or weight loss. In fact, she was overweight. An aunt had died of gastric cancer in her thirties. She was found on clinical examination to have left cervical lymphadenopathy and was noted to have obstructive jaundice, confirmed on biochemistry and ultrasound examination of the liver. She had to undergo emergency caesarean section due to foetal distress and delivered a viable foetus. She was later transferred to our medical department for further investigations and management. Blood culture was positive for E Coli. This was treated with a course of broad-spectrum antibiotic. She later developed respiratory distress and had to be transferred to the high dependency unit. Chest X-ray at this point showed picture consistent with Adult Respiratory Distress Syndrome (ARDS). This

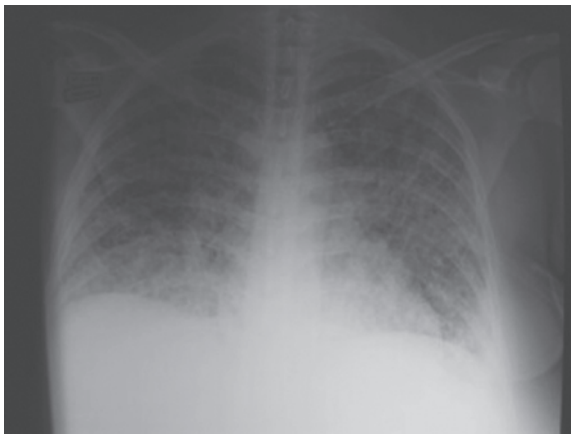

Fig. 1 Chest radiograph shows changes of lymphangitis carcinomatosis.

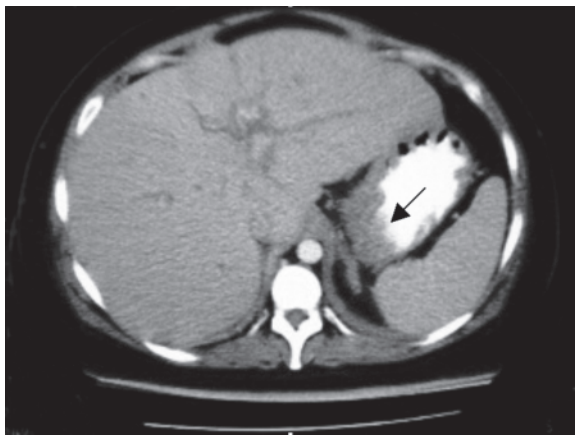

Fig. 2 Enhanced axial CT scan shows a fundal mass (arrowed).

Gastroenterology Unit
Department of General Medicine
Tan Tock Seng Hospital
11 Jalan Tan Tock Seng
Singapore 308433

V H Chong, MBChB, MRCP (UK)
Registrar and Clinical Fellow

C C Lim, MBBS, FRCP (Edin), FAMS
Head and Senior Consultant Gastroenterologist

Correspondence to:
Dr Lim Chee Chian
Tel: (65) 6378 7881
Fax: (65) 6357 7871
Email: chee_chian_lim@ttsh.com.sg

was later thought to be lymphangitis carcinomatosis as shown in Fig 1. She underwent lymph node biopsy, which showed poorly differentiated adenocarcinoma. CT scan of the abdomen and thorax showed extensive thoracic and abdominal lymphadenopathy, enlarged left adrenal gland, a swollen pancreatic head, dilated intra and extra hepatic duct. Her condition improved and she was transferred to the main ward. An upper gastrointestinal endoscopy showed a fundal gastric tumour and stenosis of the junction of first and second part of duodenum. Due to the stenosis, it was not possible to proceed with the Endoscopic Retrograde Cholangiography (ERCP). Retrospectively, the fundal tumour was visible on the CT scan as shown in Fig 2. Helicobacter Pylori test (CLO test) was negative. Biopsies from the fundal tumour and duodenum were positive for adenocarcinoma. She later underwent percutaneous decompression of the biliary system. This was complicated by a subcutaneous haematoma, which was resolving with treatment. Her condition deteriorated rapidly and progressed into full disseminated intravascular coagulopathy. She later took self-discharge against medical advice to be with her family. She died the day after going home, a month after presentation. Post mortem was not done for religious reason.

DISCUSSION

Gastric carcinoma is rare, approximately 5% in the young (defined by less than 40 years old)[4] and even more rare in pregnancy. Gastric carcinomas in young patients are characterised by preponderance in female, proximal location, poorly differentiated nature and overall poor prognosis. It seems that gastric carcinoma associated with pregnancy represents a part of a spectrum of gastric carcinoma that shows some significant differences. At the time of diagnosis, the cancers are often reported to be at advanced stages where any curative intentions are not possible. The outcomes are usually poor with death soon after diagnosis[1]. In a Japanese review of 61 patient with gastric cancer diagnosed in pregnancy, 96.7% were advanced with low resectability at 47.5%. The hospital mortality was 22.7% in those who had resection and overall prognosis was poor-three-year survival at 21.1%[2].

Most authors have suggested that early diagnosis from early work up is the best way to deal with this condition. Clearly in our case, this was not possible. Our patient did not have any gastrointestinal symptoms or weight loss that has been reports by many authors. The only risk factor was that a second-degree family had died of gastric cancer at a young age.

The pathogenesis of pregnancy related gastric carcinoma is not known. There are no data regarding pregnancy associated gastric carcinoma and H. pylori. Gastric cancers associated with H. pylori usually follow a long latent period of infection[5]. Therefore, H. pylori may not be an important factor in the pathogenesis of gastric cancers associated with pregnancy. It has been suggested that pregnancy may be a factor due to pregnancy related hormones[6]. It has been reported that human chorionic gonadotrophin beta (beta-hCG) is present in up to 60% of malignant gastric carcinoma[7] and often associated with loss of differentiation[8]. Pregnancy is also known to have an immunosuppressive effect. Other digestive hormones have been implicated to have trophic effect on cancer cells but are not generally produced in excess in pregnancy.

A high level of suspicion is needed in dealing with this aggressive disease. Positive family history of early cancer is important as there are evidences of genetic susceptibility to cancer various type of cancers including gastric cancer. Early diagnosis is required for any curative interventions. Endoscopy has been reported to be safe in pregnancy and is generally recommended for complicated cases (acute gastrointestinal bleed, atypical and severe refractory dyspepsia, nausea and vomiting that do not respond to empirical therapy or suspicion of malignancy)[9].

Pregnancy related physiological changes, pregnancy related hormones, inherited genetic susceptibility and external factors may be involved in the pathogenesis of gastric cancer associated with pregnancy. More needs to be done to learn the natural history of this condition, especially in its relation to pregnancy. It is important to remember gastric cancer as a differential diagnosis of upper gastrointestinal symptoms that do not resolve with a course of empirical treatment especially in those with family history of cancer.

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