Bilateral Krukenberg Ovarian Tumours Complicated by Pregnancy in an Antiguan Woman of African Ethnicity

The Editor,

Sir,

The association of metastatic gastric adenocarcinoma of the stomach to the ovary has been known since Krukenberg's first description of the problem in 1896 (1). The authors recently observed a case of a Krukenberg tumour associated with pregnancy in an Afro-Caribbean woman in Antigua. A 29-year-old woman presented to Holberton Hospital in St John's, Antigua, with vomiting, abdominal pain and distension. She was pregnant with a menstrual history consistent with 27-week gestation confirmed by ultrasound. Eleven months prior to admission, she had undergone partial gastric resection and chemotherapy for gastric adenocarcinoma. Abnormal findings included pallor, abdominal distension and upper abdominal tenderness with dehydration and emaciation. Fetal movements were detected.

An abdominal ultrasound examination revealed normal liver, gall bladder, pancreas, spleen and kidneys, and marked ascites. There was a gravid uterus with live intrauterine normal fetus, biparietal diameter 6.2 cm, femur length 5.7 cm consistent with a 27-week gestational age. Both the right and left inferior quadrants adjacent to the uterus showed large, oval hypoechoic masses with heterogeneous echo pattern, the left measuring 9.4 by 5.6 centimetres, the right 12.8 by 8.6 centimetres (Figure).

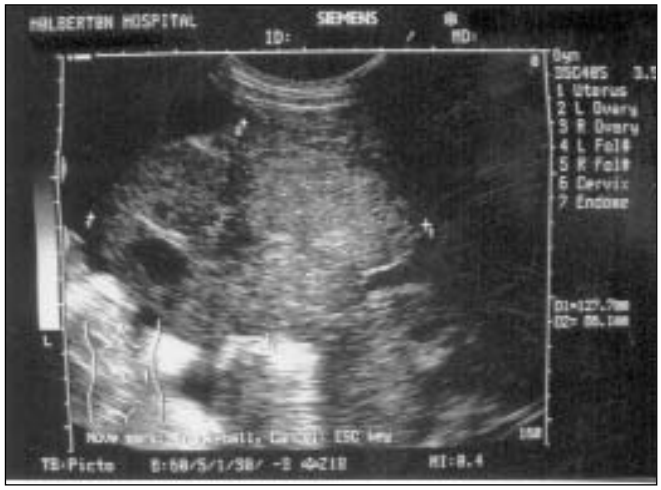

Figure: Ultrasound recording showing the left ovarian mass

The patient underwent elective Caesarean section, with the delivery of a 30-week estimated gestational age infant weighing 2 lb, 12 oz with Apgar score of seven at one minute and eight at five minutes. Surgical exploration confirmed Krukenburg tumour. Over the next four months, she had paracentesis to relieve symptoms of ascites. The infant is growing well with normal development.

An adnexal mass in pregnancy is a malignant tumour in 2% to 5% of cases (2). Ovarian cancer occurs in one in 8000 to one in 25000 pregnancies (3, 4). In one series of 90 ovarian tumours complicating pregnancy, 54% were diagnosed in the first trimester (4). Uterine death was seen in 3% of cases, neonatal death in 8% (4). General management suggestions include serial sonograms with emergent surgery for torsion, rupture or haemorrhage (2). Ascites and metastatic disease are relative indications (2). For tumours associated with stomach cancer, curative resection of localized cancer is possible only 30% of the time, so gastric surgery should not be delayed (5).

Several cases of Krukenberg tumour complicated by pregnancy have been reported (6–13). The diagnosis of Krukenberg tumours requires a high index of suspicion and careful assessment. The increasing availability of ultrasound in the Caribbean (14, 15) makes early diagnosis more likely and aggressive management may lead to increased survival. Although newer modalities such as transvaginal sonography and Doppler are available, use of these techniques for ovarian cancer are considered experimental (16).

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