Gastric cancer during early pregnancy
Two case reports

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Abstract. We report two cases of advanced gastric carcinoma in pregnancy.

Key words: Gastric cancer – Pregnancy

Introduction

Only 0.4–0.5% of gastric carcinomas occur in women under 30 (Donegan 1991; Matley et al. 1988; Tso et al. 1987). Given the high pregnancy rate in this age group about 9 simultaneous occurrences of gastric cancer and pregnancy might be expected per year in the USA and 1 to 2 cases in countries like Germany, France or Britain (Donegan 1991; Haas 1984). Most tumors are far advanced at the time of diagnosis and most patients die rapidly. The course of two recent cases of gastric carcinoma in pregnancy illustrate the difficulties of making an early diagnosis.

Case 1

A 26 year old III-gravida (2 vaginal deliveries) complained of vomiting from the 5th week of gestation and was treated with oral antiemetic agents. After the 16th week the patient began to notice postprandial epigastric pain. During the 20th week a short phase of moderate vaginal bleeding and pelvic pain followed by spontaneous recovery was reported. In the 21st week the patient had a premature rupture of membranes followed by miscarriage (female fetus without malformations) shortly after strong uterine contractions had started. During subsequent curettage a solid pelvic mass measuring 15 cm was detected clinically and confirmed by ultrasound. An immediate laparotomy revealed ascites, bilateral malignant ovarian tumors, nodal metastatic spread throughout the peritoneal cavity, and gross tumor infiltration of the greater omentum from a primary tumor of the stomach. Histological examination after hysterectomy, adnexectomy, omentectomy, and gastric biopsy showed a poorly differentiated mucus-producing gastric carcinoma with metastases to the peritoneal cavity and bilateral Krukenberg tumors of the ovary.

Postoperatively, palliative chemotherapy was administered. However, the patient’s condition deteriorated and she died 8 weeks after the diagnosis of gastric carcinoma had been made.

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A 24-year-old patient with a history of infertility had a gastroscopy because of a bleeding gastric ulcer. Biopsies diagnosed the ulcer as benign. Two months later the patient became pregnant (twin pregnancy). Four weeks after conception the patient began, once more, to complain of epigastric pain, followed by vomiting and finally haematemesis. Repeat gastroscopy during the 9th week of gestation raised suspicions of an infiltrative gastric cancer and this was confirmed by biopsy. One week later the patient was admitted for possible surgical treatment. Ultrasound showed a monochorial diamniotic twin pregnancy with 10 week-size embryos but no fetal heart action. A diagnosis of missed abortion was made and a curettage was performed. The gastrectomy showed signet ring adenocarcinoma of the stomach (pT3 N2 Mx G3) (Fig. 1). Palliative chemotherapy is currently being given.

**Discussion**

The incidence of gastric cancer peaks after the age of 50. Only 2% of gastric carcinomas affect patients younger than 30 years with no sex differences. Poorly differentiated carcinomas predominate in younger patients. Median lead time of symptoms (vomiting, epigastric pain, blood vomiting, dark stools, anemia) before diagnosis is 6 months, the median time interval between first medical consultation and diagnosis being 4 months (Matley et al. 1988; Tso et al. 1987). At the time of diagnosis tumor spread to neighboring organs or distant sites is found in 85% of cases. Only about 30% of the patients survive 6 months, and 4% live a further 5 years. The delay in diagnosis and the more aggressive biological behavior of the tumor in younger patients are possible reasons for a very poor prognosis (Matley et al. 1988; Tso et al. 1987).