



# Gastric Carcinoma in Pregnancy: Is It Really a Diagnostic Dilemma?

H. Mete TANIR, Turgay ŞENER, Sinan ÖZALP, Ömer T. YALÇIN, Hikmet HASSA

Osmangazi University Faculty of Medicine, Department of Obstetrics and Gynecology, Eskişehir, Turkey

## Abstract

A 31-year-old woman (G:0, P:0), with ten years of primary infertility, conceived following the exogenous gonadotropin stimulated cycles and had had a twin pregnancy, and admitted to the clinic, during her first trimester, with complaints of persistent nausea and vomiting and initially diagnosed as hyperemesis gravidarum. She had been scheduled for intravenous fluid and electrolytes replacement with antiemetics and intravenous B and C vitamins complexes. On following occasions, she had been discharged and readmitted to the clinic. Persistence of symptoms beyond first trimester and progressive rise of liver function tests necessitated the hospitalisation, intravenous fluid support for nutrition and gastroenterology department consultation. A gastroscopic evaluation and gastroscopy directed biopsy was subsequently performed and a gastric carcinoma was found based on the pathologic result. She had developed ascites and had been operated. On the operation, a 'linitis plastica', a late stage, unresectable gastric carcinoma was observed. Five days following the surgery, she had a spontaneous miscarriage of two female fetuses of 270 grams each. She was finally discharged from the intensive care unit with intravenous nutritional support together with pain killers for palliative purpose upon her request. She died one month following the operation.

**Key words:** gastric carcinoma, pregnancy, late diagnosis

## Özet

### Gebelikte Mide Kanseri: Tanısal Zorluklar

Onuz bir yaşında (G:0,P:0), 10 yıllık primer infertilitesi olan ve ekzojen gonadotropin tedavisi sonrası ikiz gebeliği saptanan hasta, ilk trimesterde, tekrarlayan bulantı ve kusma şikayetleri ile kliniğe başvurdu ve hiperemesis gravidarum tanısı kondu. Hastaya intravenöz sıvı-elektrolit desteği yanında B ve C vitamin kompleksi başlandı. Bu tedaviler ile düzelen hasta, birkaç kez, aynı tanı ile hastanemize kısa sürelerle yatırılarak izlendi. İlk trimester sonrasına uzayan bulantı ve kusma semptomlarının olması ve karaciğer fonksiyon testlerinde yükselme görülmesi üzerine yatırılarak gastroenteroloji bölümü tarafından değerlendirilmeye alındı. Gastroskopik değerlendirme ve gastroskopik biyopsi yapıldı. Biyopsi sonucu gastrik karsinom olarak rapor edildi. Operasyonda, linitis plastika halinde, geç evre, yayılım göstermiş karsinoma rastlandı. Cerrahiye takip eden 5'inci günde, spontan abortus sonucunda, 270'er gram dışı fetus doğurdu. Cerrahi yoğun bakım ünitesinde intravenöz mayi desteği alan hasta kendi isteği ile, palyatif amaçlı ağrı kesici ve mayi önerileri ile taburcu edildi. Cerrahiden bir ay sonra yaşamını yitirdi.

**Anahtar sözcükler:** mide kanseri, gebelik, geç tanı

## Introduction

The coincidence of gastric carcinoma and pregnancy is a rare event (1,2). Frequent upper gastrointestinal problems in the first trimester of pregnancy may render the early diagnosis of gastric carcinoma difficult to assess. Pregnancy can lead to diagnostic dilemma and delay, as many symptoms of the malignancy are attributed to the pregnant state.

In this article, we report a case at first trimester of pregnancy that was initially diagnosed as hyperemesis gravidarum. Intractable symptomatology beyond first trimester led to gastroendoscopic evaluation that showed a late stage gastric carcinoma.

## Case Report

A 31-year-old woman (G:0, P:0), with ten years of primary infertility, conceived following the exogenous gonadotropin stimulated cycles and had had a twin pregnancy. She was initially hospitalised with the complaints of difficulty in eating associated with nausea and vomiting, 4 weeks following her last menstrual period. On her laboratory findings, she had a ketonuria with elevated liver enzymes (ALT: 156 U/L and AST: 220 U/L). No hematemesis or abdominal bloating or back pa-

**Corresponding Author:** Dr. H. Mete Tanır,  
Osmangazi Üniversitesi, Tıp Fakültesi,  
Kadın Hastalıkları ve Doğum AD,  
Meşelik Kampüsü, 26480, Eskişehir, Türkiye  
Tel: +90 222 239 84 12  
Faks: +90 222 239 84 12  
E-posta: mtanir@ogu.edu.tr



in were observed. Following appropriate intravenous hydration and antiemetics, she was discharged two weeks after her first admission, free of symptoms. Five weeks following her discharge, she was rehospitalised with intractable retching at 9<sup>th</sup> week of gestation. Ultrasonographic examination revealed two fetuses developed in accordance with gestational age. Liver function tests progressively rised, reaching values exceeding 300 U/L. Other biochemistry work-ups and complete blood count revealed nothing except a hemoglobin level of 10.6 mg/dl. No signs of ascites, hematemesis was observed. Hepatitis A, B and C serum markers were negative as to indicate an acute infection. No specific therapy beyond intravenous fluid replacement with balanced electrolyte solutions and antiemetics was added. Ten days following her second admission, her oral nutrition improved with a remarkable fall in liver enzymes up to < 100 U/L each, without any ketonuria. She was then discharged from our unit. However, had to come back 4 weeks later, at 14<sup>th</sup> week of gestation, with significant difficulty in eating and presence of back pains. On her third admission, liver function tests were over 200 U/L with loss of skin turgor and tonus. During follow-up, she was feeded with intravenous electrolytes, vitamins, minerals with antiemetics. Nevertheless, her status failed to improve with progressive rise in liver function tests. Intractable upper gastrointestinal symptoms necessitated a gastroenterologic evaluation. Following the consult, an abdominal ultrasonography and endoscopy were scheduled. On her abdominal ultrasonography, a minimal perihepatic, perisplenic fluid collection with normal liver parenchyma and a gall bladder sludge were depicted. Endoscopic investigation of the stomach showed a suspicious lesion on the upper curvature near esophagogastric junction, that subsequently led to the biopsy. Biopsy result revealed a poorly differentiated, signet-ring cell carcinoma. Her tumor markers were as follows; Ca-125:379 U/L, CEA:4.5 ng/ml and AFP:115 ng/ml. At her 17<sup>th</sup> week of gestation, she developed ascites. She was operated by general surgeons in order to detect the extent of the disease and if any, the possibility for early surgical intervention. An unresectable and diffusely infiltrated gastric mass with 4 liters of ascitic fluid in the abdominal cavity was observed and the operation was stopped at this point without any further intervention. Five days following the surgery, she had a spontaneous miscarriage of two female fetuses of 270 grams each. She was finally discharged from the intensive care unit with intravenous nutritional support together with pain killers for palli-

ative purpose. Patient asked to be discharged from the hospital with the knowledge of her status. She died one month following the operation.

## Discussion

Gastric cancer during pregnancy harbours a dismal prognosis due to late recognition of the disease. Mild gastrointestinal symptoms are common during pregnancy but can also be the only symptoms in stomach cancer until the late stage (3). Reluctance to pursue diagnostic studies appears to be a major contributing factor to delayed diagnosis and poor outcome. In this article, we report a case of maternal death to alert clinicians to this rare possibility (4,5). From 1996 to the end of 2001, out of 136 hyperemesis gravidarum cases reported in our department, the reported case constituted hitherto the one with final diagnosis as advanced gastric cancer.

During early weeks of pregnancy, due to common epigastric symptoms, early diagnosis of this disease is often difficult and a poor prognosis eventually ensues, unless the clinicians keep a high level of awareness. One should prompt an early endoscopic evaluation in cases of gastrointestinal symptoms persisting beyond the first trimester.

As a conclusion, the clinicians must be vigilant to remember the differential diagnosis and include the malignancy, once again, in the evaluation of hyperemesis gravidarum that persists beyond the first trimester of pregnancy.

## References

1. Jaspers VK, Gillessen A, Quakernack K. Gastric cancer in pregnancy. Do pregnancy, age or female sex alter the prognosis? *Eur J Obstet Gynecol Reprod Biol* 1999;87(1): 13-22.
2. Chan YM, Ngai SW, Lao TT. Gastric carcinoma presenting, mild gastrointestinal symptoms in pregnancy. A case report. *J Reprod Med* 1999;44(11):986-8.
3. Davis CL, Chen MD. Gastric carcinoma presenting as an exacerbation of ulcers during pregnancy. A case report. *J Reprod Med* 1991; 36(6):450-2.
4. Tewari K, Asrat T, Rutgers JK, Nageotte MP. The evolution of linitis plastica as a consequence of advanced gastric carcinoma in pregnancy. *Am J Obstet Gynecol* 1999;181(3): 757-8.
5. Lee LC, Lee HY, Lee YH, Young SC. Pregnancy associated with gastric carcinoma. *J Formos Med Assoc* 1998; 97(12):866-8.