

# Metastatic Ductal Carcinoma of the Mammary Diagnosed During Pregnancy: A Case Report

Kazım GEZGİNÇ<sup>1</sup>, Rengin KARATAYLI<sup>1</sup>, Fatma YAZICI YILMAZ<sup>1</sup>, Hüseyin GÖRKEMLİ<sup>1</sup>, Çetin ÇELİK<sup>2</sup>

Konya, Turkey

To report a case of an invasive ductal carcinoma of the mammary diagnosed in the 3<sup>rd</sup> trimester of pregnancy.

A 30-year-old woman, with gravidity 2, parity 1 and presenting at the 29<sup>th</sup> week of gestation was referred to our centre with the complaint of a palpable hard breast mass. Examination of the mammary revealed few 0,5-1 cm hard mobile mass. The ultrasonography revealed heterogenous hypoechoic nodular lesions sized 7x5mm and 6x4 mm at the level of 11 o'clock, 16x12 mm at the level of 8 o'clock, 6,5x5 mm at the level of 7 o'clock, 6x7 mm at the level of 6 o'clock on the right mammary. We performed biopsies from the lesions and the pathology result was reported as inflammatory type of ductal carcinoma. Abdominal ultrasonography revealed a 1,5x1,6 cm of hypoechoic lesion with undistinguished borders. Radical mastectomy after a neoadjuvant chemotherapy was planned. A course of adriamycin+cyclophosphamide therapy was administered. At the 33<sup>rd</sup> week of gestation caesarean section was performed because of oligohydramnios. Modified radical right mastectomy following neoadjuvant chemotherapy was performed after delivery. After the operation cisplatin+etoposide+5-fluorouracil therapy and radiotherapy was administered. In her 13<sup>th</sup> month of follow up gemsitabin+zolondronik acid therapy was started because of bone metastasis. After 18 months with the detection of the carcinoma in the left breast left mastectomy was performed. The patient is still being followed up and the first course of cisplatin+etoposid+5-fluorouracil chemotherapy has been given.

The prognosis of the breast cancer in pregnancy is same with those in non pregnant. But the physiological changes of the breast during pregnancy can delay the diagnosis and the patients can be detected in late stages.

**Key Words:** Pregnancy, Breast cancer, Management

Gynecol Obstet Reprod Med 2012;18:154-156

## Introduction

Breast cancer is the second most common cancer in pregnant women. Pregnancy associated breast cancer is defined as the cancer find out at the time of pregnancy or during the first year of the post partum period.<sup>1,2</sup>

The incidence of pregnancy associated breast cancer changes 1/3000-1/10000, and it is %0,2-3,8 of all the breast

cancers. The incidence rises with delaying the women making child till 3<sup>rd</sup> and 4<sup>th</sup> decades.<sup>1-4</sup>

Pregnancy associated breast cancer is generally confirmed at late stages because of late diagnosis.<sup>1</sup> It is seen between the ages of 32 and 38. The most common type in pregnant is invasive ductal carcinoma.<sup>1</sup>

Mammography with abdominal protection is safe but limited in diagnosis because of the density changes of the breast during pregnancy. Ultrasonography is helpful in differentiating solid and cystic lesions but if the breast cancer is diagnosed mammography should be taken. Excisional biopsy is the recommended diagnostic method.<sup>1,2</sup> Complementary surgical procedures including mastectomy or breast conserving surgery is needed in malignant patients.<sup>1</sup>

In this report it was objected to report a case of an invasive ductal carcinoma of the mammary which was diagnosed in the 29<sup>th</sup> gestational week.

<sup>1</sup>Selçuk University Meram Medical School Department of Obstetrics and Gynecology, Konya

<sup>2</sup>Selçuk University Selçuklu Medical School of Department of Obstetrics and Gynecology, Konya

Address of Correspondence: Rengin Karataylı  
Selçuk University Meram Medical  
School Department of Obstet and  
Gynecol, Konya  
renginkaratayli@hotmail.com

Submitted for Publication: 06. 10. 2011

Accepted for Publication: 10. 04. 2012

## Case Report

30-year-old woman, gravidity 2, parity 1 presented at the 29<sup>th</sup> week of gestation was referred to our tertiary care centre complaining of a palpable hard breast mass. Examination of the patient's breast revealed a few 0,5-1 cm sized hard mobile masses. The ultrasonography revealed heterogenous hypoechoic nodular lesions on right breast; 7x5 and 6x4 mm at the level of 11 o'clock, 16x12 mm at the level of 8 o'clock, 6,5x5 mm at the level of 7 o'clock, 6x7 mm at the level of 6 o'clock. We performed excisional biopsy from the right breast and the pathology result was inflammatory type of ductal carcinoma. The patient did not have any family history of cancer. Radical mastectomy after neoadjuvant chemotherapy was planned. A course of adriamycin+cyclophosphamide therapy was administered initially. At the 33<sup>th</sup> week of gestation caesarean section was performed for the indication of oligohydramnios. Modified radical right breast mastectomy following neoadjuvant chemotherapy performed after delivery. After the operation cisplatin+etoposide+5-fluorouracil therapy and radiotherapy was administered. After 13 months of follow up, gemsitabin+zolondronik acid therapy was initiated because of bone metastasis. On the postoperative 18<sup>th</sup> month carcinoma was also detected on the left breast and left mastectomy was performed. The patient is still being followed up for 20 months and the first course of cisplatin+etoposid+5-fluorouracil chemotherapy has been administered.

## Discussion

Pregnancy reduces the risk of breast cancer and the first pregnancy age is important to have the risk of developing a breast cancer. In women who have a pregnancy before the age of 25, the risk of developing a breast cancer is 36% all along her life, following each pregnancy the risk reduces %7. The risk for the women who had pregnancy after the age of 30 is higher.<sup>1</sup> Nowadays the incidence of pregnancy associated breast cancer is increasing because of the women having child at advanced ages. Pregnancy associated breast cancer is usually seen at the ages of 23-27 and the average age is 33. In our case that was the second pregnancy of the patient and she did her first delivery at the age of 26. She had the diagnosis at 30 years of age.

Breast sonography has high specificity and sensitivity, it is the standard method for defining masses in pregnancy and lactation. For a definitive diagnosis open excisional biopsy is the most preferred diagnostic method.<sup>2</sup> Fine needle aspiration biopsy has a low sensitivity in cytological evaluation. And the core biopsy despite the high sensitivity and specificity is not preferable because of its complications. In our case, ultrasonography defined the masses and then definitive diagnosis was made by excisional biopsy.

The basic treatment is surgery and chemotherapy. For cases in the 1st trimester and early 3<sup>rd</sup> trimester modified radical mastectomy or breast conserving surgery and axillary lymph node dissection can be performed. After which adjuvant chemotherapy, radiotherapy and endocrinotherapy can be given after delivery if necessary. Another option for treatment is neoadjuvant chemotherapy, after which modified radical mastectomy or breast conserving surgery and axillary lymph node dissection is performed. Chemotherapy and postpartum adjuvant chemotherapy, radiotherapy and endocrinotherapy can be given if necessary.

Giving chemotherapeutics after the first trimester is safe. The prognosis of pregnancy associated breast cancer is bad. Radiotherapy is suggested to give after delivery, because of causing congenital malformations.<sup>1,2</sup> We planned neoadjuvant chemotherapy before surgery for our patients. But the caesarean section performed because of oligohydramnios after the first course of chemotherapy. As every pregnancy associated breast cancer patients are diagnosed in advanced stages at the time of initial diagnosis, our patient had distant organ metastasis. Bone metastasis after 13 months and left breast metastasis after 18 months was confirmed.

Elective pregnancy termination is not recommended, to improve the prognosis. However in early pregnancies termination would be discussed to apply the treatment options.<sup>1</sup> Stage 3 breast cancer patients should use contraceptive methods for 2 years after accomplishing the therapy, but pregnancy is not recommended to stage 4 patients.<sup>2</sup>

According to some studies the prognosis of breast cancer in pregnancy is the same with non pregnant, contemplation of the poor prognosis is that; the physiologic changes of the breast during pregnancy delay the diagnosis and the cancer is confirmed in advanced stages.

In conclusion breast cancer during pregnancy is diagnosed in late stages and the prognosis is poor.

## Gebelikte Tanı Konulan Memenin Metastatik Duktal Karsinomu: Olgu Sunumu

Gebeliğin 3. trimesterinde memenin invazif duktal karsinomu- nu tespit edilen olguyu sunmayı amaçladık.

30 yaşında (gravida 2, para 1) son adet tarihine göre 29 haftalık gebeliği mevcut olan hasta sağ memede ele gelen kitlesi olması sebebi ile başvurdu. Hastanın meme muayenesinde multiple yaklaşık 0,5-1 cm lik birkaç adet sert mobil kitle saptandı. Meme ultrasonografisinde sağ memede saat 11 hizasında 7x5 ve 6x4 mm, saat 8 hizasında 16x12 mm, saat 7 hizasında 6.5x5 mm, saat 6 hizasında 6x7 mm ebadlarında heterojen hipoekoik nodüler lezyonlar izlenmiştir. Hastaya meme biyopsisi

yapıldı. Patoloji sonucu duktal karsinom (İnflamatuvar Tip) olarak geldi. Batın ultrasonografisinde karaciğer sol lobta yaklaşık 1.5x1.6 cm boyutlarında sınırları net seçilemeyen hipoekoik lezyon izlendi. Hastaya neoadjuvan kemoterapi ve sonrasında radikal mastektomi planlandı. Hastaya bir kür adriamisin+siklofosfamid verildi. Hasta 33. gebelik haftasında oligohidramnios sebebi ile sezeryan ile doğum yaptırıldı. Doğumdan sonra neoadjuvan kemoterapi ve ardından modifiye radikal sağ mastektomi uygulandı. Ameliyat sonrasında sisplatin+etoposid+5-fluorourasil verildi, sonrasında radyoterapi aldı. 13 aylık takibi sonrasında kemik metastazı tespit edilen hasta gemsitabin+ zoledronik asit tedavisi başlandı. 18 ay sonrasında sol memede karsinom tespit edilmesi üzerine sol mastektomi uygulandı. Hasta 20 ay takibinde 1. kür sisplatin + etoposid + 5-fluorourasil almış olup takiptedir.

Gebelikte meme kanseri prognozu gebe olmayanlarla aynıdır. Prognozun daha kötü olduğunun düşünülmesinin sebebi gebelikte memedeki fizyolojik değişikliklerin tanımı geciktirmesi ve ileri evrede tespit edilmesidir.

**Anahtar Kelimeler:** Gebelik, Meme Kanseri, Yönetim

## References

1. Guidroz JA, Scott-Conner CE, Weigel RJ. Management of pregnant women with breast cancer. *J Surg Oncol* 2011; 15;103:337-40.
2. Navrozoglou I, Vrekoussis T, Kontostolis E, Dousias V, Zervoudis S, Stathopoulos EN, Zoras O, Paraskevaidis E. Breast cancer during pregnancy: a mini-review. *Eur J Surg Oncol* 2008;34:837-43.
3. Reed W, Sandstad B, Holm R, et al. The prognostic impact of hormone receptors and c-erbB-2 in pregnancy-associated breast cancer and their correlation with BRCA1 and cell cycle modulators. *Int J Surg Pathol* 2003;11:65-74.
4. Ring A, Smith I, Jones A, et al. Chemotherapy for breast cancer during pregnancy: An 18-year experience from five London teaching hospitals. *J Clin Oncol* 2005;23:4192-7.