



Breast cancer diagnosed during pregnancy

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Introduction:

Breast cancer is the second most common cancer in pregnant women. Pregnancy-associated breast cancer (PABC) is defined as breast cancer that occurs during pregnancy or within one year of delivery. The aim of this study was to describe clinical and therapeutic aspects of PABC.

Methods:

A retrospective descriptive longitudinal study lead in Gynecology and obstetric department of Ben Arous hospital over a period of 10 years, including women with PABC. We performed a review of all medical records of patients with breast cancer diagnosed during pregnancy.

Results:

Four cases of PABC were diagnosed among 301 women treated for breast cancer during the same period (frequency=1.32%). The median age at diagnosis was 33.75 years (30-35 years). Term of pregnancy at disease discovery was between 20 and 32 Gestational weeks (GW). The most common discovery mode was auto-alpation of a breast bulk. The mean tumor size at diagnosis was 3 cm. Lymph node involvement was found in 2 patients, both classified as N1. No patient was metastatic at diagnosis. Breast ultrasonography was performed in all patients as well as mammography except for one who was pregnant at 20 GW. Infiltrating ductal carcinoma (CCI) was the most common histological type (in 3 patients) and one patient had intraductal carcinoma (CIS). High-grade SBR forms (SBR II and III) were found in 75% of cases and two patients had vascular emboli. Mastectomy associated with axillar lymphadenectomy was performed in two patients while conservative surgery was indicated for the two others. The surgery was performed after neoadjuvant chemotherapy in 2 cases and three of our patients had chemotherapy during pregnancy. Adjuvant chemotherapy was used in one patient. No premature delivery was induced and mean gestational age at delivery was 36.25 GW. Three patients had normal delivery. The median overall survival was 76.5 months.

Discussion:

The discovery of breast cancer during pregnancy is a rare circumstance and it often happens late. Its frequency is 1/3000 to 1/10000 pregnancies. It represents 0.2% to 3.8% of all breast cancers(1,2) and 0.3% of all pregnancies (2).

Breast changes during pregnancy and some practitioner neglect the importance of breast examinations in pregnant women, which explains an average tumor size of 3.8cm at the time of diagnosis(2).

Mammography can be performed during pregnancy with adequate protection of the stomach and pelvis. It has a sensitivity of 70-90% with false negatives of up to 40%. A complementary ultrasound is imperative and confirms the suspect character of malignancy of a mass (2).

Histologically, infiltrating ductal carcinoma is the most frequent cancer (75-90%), with a higher SBR grade and hormone receptors being more frequently negative than outside of pregnancy (2). HER2neu is overexpressed in 10-25% of all pregnancy-associated breast cancers(2) which are typically highly proliferative with Ki67 expression greater than 30%(3).

For therapeutic management, there is no evidence that termination of pregnancy improves prognosis, except in late-stage cancers discovered during the first trimester (3). Radiotherapy and hormone therapy should be started after delivery (2,3). Chemotherapy should be started after the end of the first trimester and should be stopped at least 3 weeks before delivery. The surgical procedure depends on the stage of the disease. Finally, breast cancer associated with pregnancy often has a worse prognosis than cancer not associated with pregnancy (3).

In our series, breast cancer associated with pregnancy was observed in 4 women. It was characterized by a higher histological grade and more frequent metastatic relapses. The 5-years survival rate in this population was 50%, with no significant difference compared to the rest of the study population.

Conclusions: Breast cancer should be treated during pregnancy following the general guidelines for young nonpregnant patients as closely as possible. Therefore, pregnancy does not seem to influence breast cancer prognosis.

References:

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