BREAST DUCTAL CARCINOMA IN SITU DURING PREGNANCY. A CASE REPORT

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Abstract

Malignant tumours during pregnancy are relatively rare. Of these, breast cancer is the most common one, affecting approximately 1 in 3000 pregnant women. The association of breast cancer and pregnancy raises many problems - some of which are still controversial. These relate to the diagnosis, treatment, decision to continue / terminate the pregnancy, as well as to the subsequent therapeutic conduct. We are presenting the case of a 34-year-old pregnant woman with unilateral nipple bleeding during the 8th week of pregnancy. Biopsy revealed an intraductal carcinoma in situ. The maternal outcome were good due to a highly effective interdisciplinary collaboration between the oncologist, the surgeon and the obstetrician involved in this case.

Rezumat: Carcinomul ductal in situ mamar diagnosticat în timpul sarcinii. Case report.

Tumorile maligne diagnosticate în timpul sarcinii sunt o situaţie rar întâlnită. Dintre acestea, cancerul mamar este cea mai frecvent diagnosticat, afectând aproximativ 1 din 3000 de femei gravide. Asocierea cancerului de sân cu sarcina ridică mai multe probleme - unele dintre ele fiind încă suubiect de controverse. Acestea se referă la diagnostic, tratament, decizia de a continua / întrerupe cursul sarcinii, precum şi la conduita terapeutică ulterioară. Vă prezentăm cazul unei femei gravide în vârstă de 34 de ani, cu sângerare mamelonară unilaterala in timpul săptămânii a 8-a de sarcină. Biopsia a relevat un carcinom intraductal in situ. Prognosticul matern a fost bun, datorită unei colaborări interdisciplinare extrem de eficient între oncolog, chirurg şi obstetrician implicaţi în acest caz.

Cuvinte cheie: Cancer mamar, sarcină, avort terapeutic

Introduction

Malignant tumours during pregnancy are relatively rare. In women under 25 the most common cancers are leukaemia and lymphomas (1,2). During pregnancy breast cancer is generally detected at advanced stages of the disease, as its detection is rendered difficult by the morphological and functional changes specific to pregnancy. Effective treatment implies an effective collaboration between the obstetrician, the oncologist and the surgical oncologist. The decision of the patient or of the patient's family to continue / terminate the pregnancy also plays an important role in the therapeutic outcome. The methods of treatment, the optimum treatment time and the pregnancy termination time are still

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controversial. The peculiarity of this case lies in the detection of a rare disease during pregnancy while in situ.

Case report

The patient F.I. , 34, makes an appointment with the gynaecologist for amenorrhea and breast complaints: the appearance of a bloody nipple discharge in the left breast, and of a small palpable nodule in the left nipple area. The patient does not have a family history of genital cancer. As for personal history: the patient gave birth three years before by Caesarean section during labour, as a result of foetal dystocia, has no history of menstrual disorders, does not smoke, does not drink alcohol and does not use drugs. She used COC pills for 1 year postpartum.

Based on the clinical examination and on the laboratory tests the following diagnosis was established:

- patient of normal weight, 8 weeks pregnant, with an ongoing pregnancy
- left breast lump, secreting mamma.

The oncologic examination carried out confirms the presence of a subcentimeter nodule and the ultrasound scan raises the suspicion of malignancy. Fine needle aspiration biopsy is performed, with the following pathology test result: E +, P- ductal carcinoma in situ, human epidermal growth factor receptor 2 (HER2) positive.

The interdisciplinary examinations performed outline the following therapeutic strategies: 1. Abortion followed by stage-specific treatment; or 2. total mastectomy with lymphadenectomy and continuation of the pregnancy depending on the histopathological findings.

The decision of the family was for the patient to undergo surgery and to have the therapeutic strategy reassessed based on the final pathology test results. Surgery was carried out at 10 of pregnancy under IOT anaesthesia, and confirmed the initial diagnosis, namely: E +, P- ductal carcinoma in situ, human epidermal growth factor receptor 2 (HER2) positive, negative locoregional lymph nodes.

Favourable subsequent evolution - both locally and of the pregnancy. Upon the onset of labour at 39 weeks, a caesarean section was performed, due to scarred uterus and the rupture of the membranes. Medicamentous ablactation post partum.

After 1 year, the results of the oncologic examination are within normal limits, without any maintenance therapy. The patient has initiated the breast reconstruction procedures. From a gynaecological point of view, menstruation has resumed, with an ASCUS type modification cervical cytology at 6 months after birth, with normal colposcopy, which returns to normal after local anti-inflammatory therapy.

Discussions

Breast cancer is the most common malignancy encountered in pregnant women over 35 years of age. (3) Gestational breast cancer is defined as breast cancer that is diagnosed during pregnancy or in the first year postpartum. (4) The incidence of breast cancer during pregnancy increases with age. (5) The frequency rate of this condition is: 10-40 / 100 000 pregnant women and accounts for 2-3% of all breast cancers. (6) The influence of pregnancy on the incidence and progression of breast cancer remains a controversial issue. What has been established is that the increased oestrogen titres during pregnancy lead to tumour growth and progression of the disease. Other studies report that the evolution and prognosis of breast cancer is not influenced by pregnancy and lactation when compared with non-pregnant women. (7,8,9)

Diagnosing breast cancer during pregnancy is difficult because of the morphological and functional changes occurring in pregnancy. An effective collaboration between the obstetrician, the oncologist and the surgical oncologist is critical for the diagnosis, correct staging and treatment of this disease. However, the methods of treatment, the optimum treatment time, and the pregnancy termination time are still controversial. Most studies report that breast cancer during pregnancy is commonly diagnosed at advanced stages. (10) During pregnancy breast cancer is rarely diagnosed at stage 0 due to the specific morphological changes occurring in this period, as well as to lack of self-examination

and also to breast examination by the gynaecologist, which is often neglected. (11) With regard to the diagnosis of the disease, the German Breast Group (GBG-29) reports a sensitivity of 68% in the case of mammography and of 93% in the case of ultrasound scanning.

If a breast tumour is detected during pregnancy, both the diagnosis and the means are the same as in the case of non-pregnant patients. (12,13,14) The means of diagnosis that can be used during pregnancy are as follows: chest X-ray with radiation protection of the abdomen and MRI without contrast. CT scans and MRI with contrast are not recommended, especially during the first trimester. (15) The optimal treatment of breast cancer is still a dilemma.(16)

When breast cancer is diagnosed before 16 weeks of pregnancy, the standard recommendation is that of abortion. Continuation of pregnancy involves a high risk for disease progression, as chemotherapy cannot be performed. (17)

If the patient chooses to continue the pregnancy, modified radical mastectomy is recommended. (18, 19,20). Mastectomy complications during pregnancy do not differ from those in nonpregnant patients. (21) If necessary, radiotherapy will be postponed until the second or third pregnancy quarters (22,23).The prognosis is affected by the same factors as in the case of non-pregnant patients (24,25,26), namely: clinical stage (TNM system), age, grading, number of positive lymph nodes, the expression of the E and P receptors, and of HER-2 (human epidermal growth factor receiver).Chemotherapy during pregnancy can lead to miscarriage and a higher risk of birth defects 7,5 - 17%. (27)In as far as the delivery method is concerned, it is equally divided between vaginal delivery and caesarean section. (28)Pregnancy termination must occur after 33 weeks of pregnancy.In patients who undergo chemotherapy, delivery can be complicated by bleeding or infection.After childbirth, chemotherapy and radiotherapy will be performed depending on the clinical stage.

If the E and P receptors are expressed, hormone therapy will be performed postpartum. (29,30,31)Breastfeeding is contraindicated in patients who undergo chemotherapy and hormone therapy, because these substances can pass directly into breast milk. Medicamentous ablactation is recommended in these cases.(32,33)

Conclusions

1. Detection of any mammary tumours during pregnancy or lactation should be immediately followed by diagnostic procedures, and if necessary, by treatment. The ideal method of diagnosis is fine needle aspiration biopsy.

2. The prognosis depends on the disease stage and on how early the diagnosis is established.

3. The method of treatment should be established by a multidisciplinary team including an obstetrician, an oncologist and a surgical oncologist. The treatment should be accepted and assumed by the patient. The main concern of doctors should be deciding on whether the pregnancy should be allowed to continue or whether it should be terminated. This decision will also take into account the patient's wishes, as well as the patient's therapeutic needs.

4.The standard recommendation is that of surgical treatment. Radiation therapy should be avoided, as it has adverse foetal effects. Chemotherapy is possible once the first quarter of pregnancy is completed, and will be administered based on the same principles as in the case of non-pregnant women.

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