Case Report

Malignant melanoma and pregnancy: A case report

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Abstract
Malignant melanoma in pregnancy is rare but its incidence is rapidly increasing due to the growing trend for child-bearing in advanced age. A case of malignant melanoma diagnosed in the 25th gestational week and treated with local surgical resection is presented. The patient had an uneventful remaining pregnancy, delivered by cesarian section at 37 weeks and has been disease - free for 1 year postpartum. Early diagnosis and prompt treatment can lead to a favorable outcome.

Key words: malignant melanoma; pregnancy; treatment

Cancer during pregnancy is not uncommon, estimated to occur in approximately one case in 1000 pregnancies. Cancer cases associated with pregnancy have increased in recent years, primarily due to the increasing age of childbearing. Furthermore, more cancer cases are identified due to more diagnostic procedures in pregnancy. The malignancies most frequently observed in pregnancy are breast cancer and malignancies of the female genital tract, followed by melanoma.

Malignant melanoma develops from melanocytes, cells of neural origin which migrate from the neural crest to skin sites and produce melanin. In the majority of cases (more than 90%), melanoma appears on the skin and constitutes the most severe form of skin cancer. The incidence of the disease varies across the geographical distribution of the population, with a higher annual incidence in Australia and New Zealand (40 to 60 cases per 100,000) and a lower frequency of 10 to 15 cases per 100,000 population per year in Europe and the United States. The actual incidence of melanoma in pregnancy is unknown, but several authors have estimated it to be between 4 to 8 cases per 100,000 pregnancies, accounting for almost 8% of all malignant neoplasms that occur during pregnancy and 1% of all diagnosed melanoma cases. A significantly increased risk has been reported for primigravida women especially those of advanced age at first birth.

Case report
A primigravida woman at 25 weeks of gestation presented to the outpatient clinic of our department due to a painful cutaneous lesion localized in the right thigh. The lesion had been noticed by the patient since one week. Clinical examination revealed the presence of ulceration on a preexisting nevus, complicated by slight bleeding and itching. Due to the clinical suspicion of malignancy, the nevus was surgically excised and the histopathological examination confirmed the diagnosis of malignant melanoma.
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Malignant melanoma of the skin, stage I. The patient was referred to a specialized center, where she underwent further surgical therapy without dissection of local lymph nodes or the application of other complementary treatment. The patient had a premature rupture of membranes in 37 weeks of gestation and gave birth to a healthy neonate with a birth-weight of 2,950 gr by cesarean section due to breech presentation. A year later, the patient remains disease-free.

Discussion

Malignant melanoma during pregnancy is a rare life-threatening entity that requires multidisciplinary approaches in organized centers with the collaboration of obstetrician-gynecologists, surgeons, oncologists, radiotherapists, and neonatologists. Currently, there is no consensus on the treatment of pregnant women with melanoma, however therapeutic approach should include saving mother’s lives by adequate treatment of curable malignancies and efforts to protect the fetus and the newborn from the harmful effects of cancer therapy.

The “gold standard” in therapeutic approach of melanoma in pregnancy is surgical treatment. It can be performed safely in all trimesters of pregnancy, although it is preferable to be avoided in the first trimester, in order to minimize the risk of fetal loss. The type of surgery therapy depends on the stage of the disease. Wide surgical excision of the lesion, biopsy and examination of the sentinel node, is recommended, and if the sentinel lymph node is positive, a complete lymphadenectomy of recruited lymphatic station is indicated. The main complications of surgical therapy of melanoma in a pregnant woman include increased risk of preterm delivery and intrauterine growth restriction as well as augmented perinatal morbidity and mortality.

Radiotherapy as an adjuvant therapy to surgery should be postponed for the period after childbirth in order to avoid the exposure of fetus to high doses of radiation. Chemotherapy must be displaced for the second or third trimester of pregnancy, since its use in the first trimester was associated with a significantly increased risk of spontaneous miscarriages and congenital abnormalities in the offspring. Dacarbazine in combination with other chemotherapeutic agents including bleomycin, vincristine and lomustine have been shown to be the most effective in the treatment of metastatic melanoma. Dacarbazine has been assigned to pregnancy category C by the FDA. Although there are no controlled data in human pregnancy, a number of case reports has shown that the use of dacarbazine in the second trimester of pregnancy does not cause birth defects in the newborn.

In contrast with earlier views, the termination of pregnancy in the case of a diagnosis during the first trimester, is now considered not to affect the prognosis of melanoma during pregnancy. Nevertheless, the couple should be informed about the therapeutic treatment required and the arising risks. Selective abortion in the first trimester is indicated only for women who are at the final stage of the disease.

Conclusions

Malignant melanoma in pregnancy is a life-threatening disease with increasing incidence in pregnancy due to advanced maternal age. In the case presented, the patient suffered from a localized melanoma, went through surgical treatment alone and the pregnancy outcome was excellent. Obstetricians should be alerted to the need for careful examination of pigmented lesions during pregnancy. Management depends on the stage of the disease, the time of diagnosis and patient preferences.

Conflict of interest

Author declares no conflict of interest.
References