

Mycosis fungoides and pregnancy

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Abstract. Mycosis fungoides is a cutaneous T-cell lymphoma, a subgroup of non-Hodgkin's lymphomas, characterized by skin infiltration and occasionally systemic involvement. The association of pregnancy and mycosis fungoides has not been described previously. A case of mycosis fungoides, stage IVb, in a pregnant woman is reported. Prior to pregnancy, the patient received adriamycin, cyclophosphamide, vincristine prednisolone (CHOP) and bleomycin and total body irradiation. Around the conceptional period she presented a cutaneous relapse palliated with photon radiotherapy. No obstetrics complications were observed during gestation. At 39 week's gestation a cesarean section was performed and a healthy 2900 g boy was delivered. Mycosis fungoides did not worsen during pregnancy and postpartum period. In conclusion mycosis fungoides did not adversely affect pregnancy outcome and gestation did not worsen the malignancy course. This case report may be valuable in managing patients with mycosis fungoides who are currently pregnant or are contemplating pregnancy.

Case report

A 28-year old woman, gravida 0, para 0, was diagnosed as having mycosis fungoides (MF) when she was 25. At initial diagnosis she presented with plaque skin disease and cutaneous tumors, and lymph nodes and bone marrow involvement (stage IVb). Six courses of CHOP regimen (adriamycin, cyclophosphamide, vincristine and prednisolone) and bleomycin were administered. After one year the patient presented a

generalized cutaneous relapse which was successfully treated by total body irradiation with electron-beam radiotherapy (total dose of 3000 cGy). Eighteen months later a localized episode involving face and neck skin was again treated by electron-beam radiotherapy (2400 cGy). Three months before her first visit to our department, the patient had a new generalized relapse palliated with photon radiotherapy (2 courses of 100 cGy each, one month apart) resulting in a partial remission of the cutaneous lesions. At that first visit, she referred to amenorrhea for the last three months and the ultrasonographic diagnosis of a 10 week's gestation was made. Therefore, conception probably occurred at the time of photon radiotherapy.

Laboratory data, ultrasonography and non-stress test controls were all normal. At 39 week's gestation the patient presented with premature rupture of membranes and antibiotic therapy was prescribed. After 48 h, delivery was induced and 11 h later a cesarean section was performed. A healthy 2900 g boy was born without congenital malformations. Apgar scores were 8 and 9 at 1 and 5 min, respectively. The histopathologic examination of the placenta did not reveal any abnormality. Postoperative recovery was complicated by an abscess of the surgical incision which resolved with drainage and antibiotics. The patient was discharged in good condition 12 days after surgery.

During the whole gestation and postpartum period MF did not worsen (Figs. 1 and 2). No specific therapy was necessary to treat the residual lesions.

At age 9 months, the infant showed normal general development.

Discussion

Incidence of malignancies in pregnant women is not higher than the observed in non-pregnant ones. Malignant lymphomas are a heterogeneous group of lymphoproliferative disorders that appear in 1/1000-6000 gestations (1), and represent in frequency the fourth observed neoplasm during pregnancy (2). Hodgkin's disease is the most frequent lymphoma observed in pregnancy (1), whereas non-Hodgkin's lymphomas (NHL) have been only reported in 36 cases (3). Cutaneous T-cell lymphomas are a subgroup of NHL, MF and Sézary syndrome being the most common ones (4).

MF is a disease characterized by infiltration of the skin with malignant T-lymphocytes as the predominant feature. The initial course is usually quite indolent with slow

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Abbreviations: MF, mycosis fungoides; NHL, non-Hodgkin's lymphomas; HTLV, human T-cell lymphotropic virus

Key words: mycosis fungoides, cutaneous T-cell lymphoma, pregnancy, non-Hodgkin's lymphoma



Figure 1. Mycosis fungoides generalized residual lesions after photon radiotherapy at 10 week's gestation.



Figure 2. Aspect of cutaneous lesions prior to delivery, showing no substantial changes during pregnancy.

progressive cutaneous involvement of the skin with patches, plaques, tumors or diffuse erythroderma. Nevertheless, malignant T-lymphocytes may infiltrate the T-dependent regions of lymph nodes, and disseminate widely to other visceral structures. This condition is generally associated with short survival times (5).

To the best of our knowledge this is the first case ever reported of MF and pregnancy. This rare association can be explained first, by the very low frequency (0.2-0.4 cases per 100000 population) of MF, second by the sex distribution (twice as frequent in men than in women) and finally, by the age of presentation (usually over 50) (6).

The interaction of pregnancy and NHL is difficult to assess because of the relative paucity of cases (7,8). Although some authors have suggested that NHL in pregnancy is most commonly associated with aggressive histology and disseminated disease (9,10), others have found no influence on the course of treated or untreated NHL (8). On the other hand, NHL usually have an adverse effect on pregnancy (8).

In our case, in spite of the advanced disease, poor survival prognosis, total body irradiation and chemotherapeutic treatment, the patient became pregnant three years after the diagnosis of MF. Moreover, around the conceptional period she presented a generalized cutaneous relapse palliated by total body photon radiotherapy. Although radiation treatment was administered early in pregnancy, the fetus did not become affected since most of this type of energy is absorbed in the first 5-10 mm of tissue.

Albeit the effects of NHL on the pregnancy are often harmful, and in spite of the lymph nodes and bone marrow involvement, in this advanced case of MF, whole gestation progressed normally. Furthermore, pregnancy did not worsen MF evolutive course and the patient did not require additional antineoplastic treatment.

Finally, the facts that both etiopathogenic associations between MF and human T-cell lymphotropic virus (HTLV) types I, II, and V (11,12), and clusters of MF cases within families have been described (13), lead to consider the possibility of HTLV vertical transmission in the reported case. Although apparently the infant had grown up normally until age 15 months, a careful follow-up is needed to rule out that possibility.

In summary, MF did not adversely affect pregnancy outcome, and gestation did not worsen the malignancy course. Although therapeutic abortion has been recommended for patients with NHL who present with aggressive histology and more advanced disease (stages II, III, IVA, or IVB) in the first trimester (8), the favorable outcome in our case may be valuable in counseling patients with MF who are currently pregnant or are contemplating pregnancy. Moreover, since several studies have suggested that viral agents may play a role in the etiology of MF, vertical transmission cannot be excluded and follow-up of the newborns is warranted.

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