CASE REPORT

Atypical Case of Choriocarcinoma with Breast Metastasis

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Introduction

Choriocarcinoma is a pure epithelial tumor composed of syncytiotrophoblastic and cytotrophoblastic cells with common metastases to the lung, vagina, liver, kidney, and brain [1]. Metastasis to the breast is very rare [2]. Since choriocarcinoma is a rapidly invasive, widely metastasizing malignancy with good response to chemotherapy, it is important to obtain early diagnosis for better outcome [3]. Because of the rarity of the disease and the importance of early detection and management, we report a case of choriocarcinoma presenting with a breast lump.

Case Report

A 27-year-old patient presented to the out-patient department with complains of a painless lump in the right breast for the past 1 month, associated with on and off per vaginal spotting for the last 10 days. Her last menstrual period was 2 months ago.

Her previous menstrual cycles were irregular with average flow.

Obstetrical history: P2 + 3 L2 H/O; previous 2 LSCS and 3 spontaneous abortions

6 months ago, she had 4 months of spontaneous abortion and there was no H/O molar pregnancy.

On examination, the patient was thinly built with a normal pulse and blood pressure. Breast palpation revealed a solitary, firm, non-tender lump in the upper outer quadrant of the right breast. The skin over it was not fixed, no lymph nodes were palpable, and there was no nipple retraction or discharge. The lump was not fixed to the chest wall. The abdomen was soft and no remarkable findings were present. On per speculum examination, the cervix and vagina were healthy. Per vaginal palpation revealed a uterus of 10 weeks' size with free bilateral fornices. Sonography of the abdomen and pelvis showed a uterus measuring 105 × 68 × 63 mm and the presence of a 53 × 45-mm-sized mixed echogenic area in the anterior wall with a small collection in the uterine cavity. Both ovaries were normal. Serum β -HCG was 732600 IU/ml. Chest radiograph showed multiple round lesions; CT scan of the brain was normal.

In view of the revealed metastatic choriocarcinoma on the breast FNAC, high β -HCG, and multiple parenchymal nodules on the chest, a diagnosis of choriocarcinoma with breast and lung metastasis was made.

After routine preoperative investigations for surgical fitness, the patient underwent total abdominal hysterectomy. Three days before surgery, chemotherapy was started. On gross examination, the excised uterus was of 10 weeks' size and a cross section showed irregular friable growth in the cavity. Postoperatively, the patient was given chemotherapy (methotrexate and leucovorin). Histopathologic examination

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of the uterus showed choriocarcinoma with extensive tumor necrosis and the tumor infiltrating the myometrium. Following chemotherapy, β -HCG was found to be 21105 IU/ml, indicating quite satisfactory response to the treatment.

Discussion

Choriocarcinoma occurs in 1 out of 20,000–40,000 pregnancies, and only 1 out of 1,60,000 term pregnancies is followed by choriocarcinoma [4]. The breast is an uncommon site for metastatic disease from extramammary primary neoplasms. The most common primary tumor sources for breast metastases in order of decreasing frequency are lymphomas, melanomas, rhabdomyosarcomas, lung tumors, and ovarian tumors [2]. Choriocarcinoma presenting with breast metastasis is very rare and only few cases have been reported [5]. Our patient's history of single breast lump with FNAC report showing choriocarcinoma highlights the fact that in a patient with a breast lump, metastatic choriocarcinoma should be kept as a differential diagnosis in an appropriate clinical setting and the patient should be worked up for the same. Proper obstetrical and menstrual history with gynecological examination is of relevance in all female patients.

Regarding management, as the patient had completed her family, total abdominal hysterectomy was performed. Regarding chemotherapy, as per the WHO, she was in stage 4 with poor prognosis and the chemotherapy recommended

was EMACO [6], but as the patient was not fit for the EMACO regimen, single-drug methotrexate with folinic acid rescue was given. The patient responded to the treatment very well and there was progressive fall in serum β -HCG level.

Here, it is appropriate to conclude that for any breast lump, the rare possibility of metastatic choriocarcinoma should be considered, especially when there is a history of amenorrhea in the recent past.

References

1. Howie PW. Trophoblastic disease. Dewhurst text book of gynecology, vol. 37. 4th ed. Oxford: Blackwell Scientific Publications; 1986. p. 556–67.
2. Kalra N, Ojili V, Gulati M, et al. Metastatic choriocarcinoma to the breast: appearance on mammography and Doppler sonography. *AJR*. 2005;184:S53–5.
3. Choi HJ, Park IA. Fine needle aspiration cytology of metastatic choriocarcinoma presenting as a breast lump: a case report. *Acta Cytol*. 2004;48(1):91–4.
4. Hernandez E. Gestational trophoblastic neoplasia: <http://emedicine.medscape.com/article/279116-overview>.
5. Kumar PV, Esfahani FN, Salimi A. Choriocarcinoma metastatic to the breast diagnosed by fine needle aspiration. *Acta Cytol*. 1991; 35(2):239–42.
6. Decherney AH, Nathan L, Goodwin TM, et al. Current diagnosis and treatment obstetrics and gynecology, Chapter 53. New York: McGraw-Hill publication 2007; p. PP890-95.