Bilateral Malignant Phyllodes Tumor of the Breast

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Summary

Phyllodes tumor is one of the breast-specific biphasic tumors, arising from the intra-lobular breast stroma. It constitutes less than 1% of all breast tumors. Bilateral malignant phyllodes tumor is uncommon. We report a case of 32-year old multiparous woman who died of multi-organ metastatic disease. The diagnosis was based on histology report of the breast specimen. We highlight important issues on the behavior and managemenet of the tumor. *Niger Med J. Vol. 48, No. 4, Oct. – Dec., 2007: 101 – 102.*

Keywords: Breast, Phyllodes tumor, Malignant.

INTRODUCTION

Cystosarcoma phyllodes is an uncommon biphasic tumor of the breast, arising from the intra-lobular stroma[1]. It constitutes only 0.3–0.9% of all breast tumours[2]. It occurs in the same age group as breast carcinoma, with median age at time of diagnosis being 45years or 4th and 5th decades of life[3,4]. The term 'sarcoma' was initially used because of its fleshy appearance, but a more current term is phyllodes tumour. When first described by Johannes Mueller in 1838 the lesion was thought to be a benign neoplasm, without metastatic potential[5]. Bilateral occurrence is very rare[4,6]. We report a case of bilateral malignant phyllodes tumour of the breast in a 32-year old multiparous woman who died of metastatic disease. This is the first recorded case in this hospital.

CASE REPORT

A 32-year old multiparous woman presented to the surgical clinic of the Nnamdi Azikiwe University Teaching Hospital, Nnewi with 4-month history of left breast lump which was increasing rapidly in size. In the past she had had excision of lumps on the same breast on 2 occasions. These were done in a private hospital. On each occasion histology report was not sort for. Clinical examination showed healthy looking young woman with huge well-circumscribed left breast mass measuring 20 x 17cm. The mass had no attachments, and was not ulcerated. Axillary nodes were not palpable; and the right breast was free from tumour.

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Full blood count and chest x-ray were within normal limits. A clinical diagnosis of recurrent phyllodes tumour was made based on afore mentioned clinical features, and histology requested. The histology report confirmed the diagnosis of malignant phyllodes tumor. In view of the histopathology report, a simple mastectomy was done. At surgery there was no evidence of chest wall involvement. Following the operation, she was given 6 courses of post-operative cyclophosphamide, methotrexate and 5-fluorouracil (CMF).

She was then lost to follow-up for another 3 years. She, however, presented again with a mass in the contra-lateral breast. The mass was well circumscribed and measured about 6 x 5cm. Chest x-ray showed canon ball metastasis involving both lung fields. Histopathology of biopsy taken showed malignant phyllodes tumor that shared features with the lesion of the left breast. She opted for alternative medical therapy and She died 6 months later in a prayer house.

DISCUSSION

Phyllodes tumor is an uncommon fibro-epithelial neoplasm. Bilateral lesions are rare, with only six cases being reported in literature in the last 2 decades[4,6]. Some of these were entirely benign in both breasts, while some has an immature form of the disease in at least one side. Very few cases show bilateral malignancy. This is one of such. With bilateral occurrence of malignancy, it is often difficult to determine whether the later occurring lesion was a primary tumor on its own or a metastasis from the earlier lesion. This is where histology becomes additionally useful. The histology reports of the index patient's left and right breast lump biopsies described tumors with very similar features, and therefore, suggested metastatic bilaterality. The presence of canon balls in the lungs further supported this thinking. Mestastasis has been recorded in about 3–12% of cases[3].

The case being reported was multiparous and still in her reproductive age. There is an association between pregnancy, lactation and the metamorphosis of bilateral phyllodes tumor[6,7]. Being 32years, she falls within the 4th and 5th decade median age of occurrance recorded elsewhere[4,8].

Based on the histological characteristics of the tumor, including its margin (pushing or infiltrating), stromal cellularity (slight or severe), stromal overgrowth (absent, slight or severe), tumour necrosis (present or absent), stromal cell atypia (absent, slight or severe), and mitotic rate, phyllodes tumors are classified into 'benign', 'borderline' or 'malignant' categories[8]. The presence of necrosis and the type of stromal elements may be

important prognostic factors for metastasis. Those with stromal elements other than fibromyxoid do worse than the others[3].

However, correlation between the histopathological picture and some other clinical behavior is not always as certain. While local aggression, skill ulceration and peau d'range have been seen with benign phyllodes tumor, the malignant disease may not have these features (as in the index case) even though they may be larger and faster growing[9]. Our patient later developed axillary lymphadenopathy, a feature that has been described as exceptional[3]. The most common sites of distant involvement for phyllodes tumor are liver, lungs and bones. This patient had pulmonary and hepatic metastasis. She died 6 months after developing symptomatic metastic disease. Malignant phyloodes tumor could therefore, be described as a rapidly progressive lesion.

Surgery remains the mainstay of primary treatment for malignant phyllodes tumor[10]. Simple mastectomy, as was done for this patient, is adequate treatment. As the tumour undergoes vascular spread, the proportion of patients with lymph node metastasis is only about 10%. This is why routine axillary clearance is not recommended[1,11]. It has been suggested that mastectomy is no longer required provided adequate resection margin is achieved[2]. Local recurrances after the initial wide resection indicate inadequate surgery[11].

Tumor size appears to be important in predicting metastic spread[10]. The spread seen in this patient was therefore, not surprising since she had a huge tumour. Other negative prognostic indices seen in the index case were stromal overgrowth of the glands, marked cellular atypia and moderate to severe stromal cellularity. There is yet no general agreement regarding adjuvant chemotherapy and radiotherapy, even though effective chemotherapy (doxorubicin and ifosfamide) and radiotherapy have been reported in some cases[12]. CMF regimen was used for our patient because of affordability.

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