

## Original Article

# Synchronous bilateral primary breast malignant phyllodes tumor and carcinoma of the breast with Paget's disease: a case report and review of the literature

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**Abstract:** Synchronous bilateral primary breast malignant phyllodes tumor or/and carcinoma of the breast with Paget's disease is rare. In the article, we present a case of bilateral carcinoma of the breast with Paget's disease of the right breast and malignant phyllodes tumor of the left breast. A 44-years-old Chinese woman presented with a 1 month history of the right breast nipple with eczema and fester and growing and palpable mass of left breast. Molybdenum target X-ray revealed microcalcification in the right breast, which was highly suspected of malignant tumor, and round-like mass with smooth surface and homogeneous density in the left breast. Color ultrasound showed a lobulated lump which circumferential blood flows around in the left breast, and which did not show any mass in the right breast. The patient was undertaken the bilateral modified radical mastectomy. The histological diagnosis was Paget's disease associated with infiltrating ductal carcinoma in the right breast and malignant phyllodes tumor the left breast. The patient also received 6 cycles of the postoperative adjuvant chemotherapy by using T.T. regimen comprised docetaxel (100 mg) and pirarubicin (60 mg).

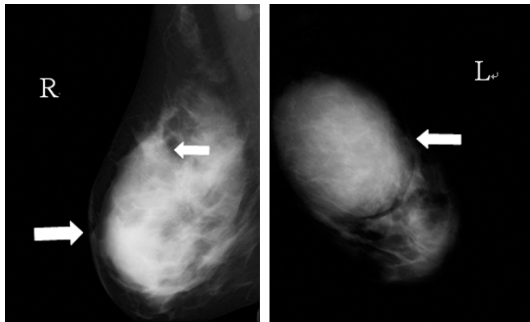
**Keywords:** Breast cancer, Paget's disease, malignant phyllodes tumor

## Caes report

In early 2013, a 44-years-old Chinese woman which have a 1 month history of the right breast nipple with eczema and fester and growing and palpable mass of left breast was refer to our hospital in order to diagnosis and treatment. The patient had had four pregnancies, two normal deliveries and two abortions, no family history of breast carcinoma and denying smoking. Her father died of liver cancer 15 years ago. On the physical examination, the patient had protrusion of the tumor in the left breast and no mass in the right breast except for the erosions of nipple and areola. There was no lymph node enlargement in the armpits and supraclavicular area. Mammography (**Figure 1**) showed a round-like 11-cm nodule in the left breast, without skin retraction, with elastic firm consistency and negative axillary lymph nodes. Mammography also noted microcalcification in

the right breast and negative axillary lymph nodes, suggesting malignancy. However, no masse was found by the color ultrasound in the right breast. The both breasts lesions were excised and frozen section examination showed malignant tumor of the lesions. We decided to perform Modified radical mastectomy in the right breast and simple mastectomy operation in the left breast.

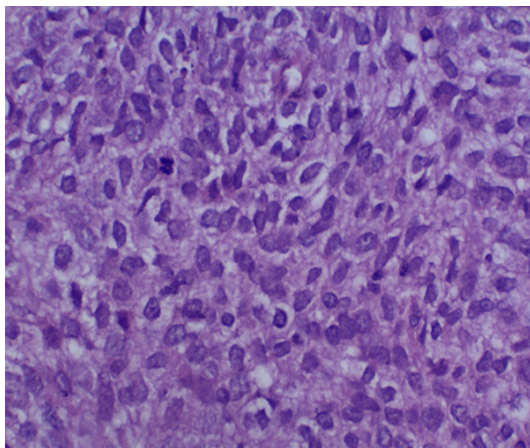
The pathological final result showed the presence of phyllodes (**Figures 2, 3**), which measured 10×9 cm in the left breast. The lesion from the right breast was histologically diagnosed as infiltrating ductal carcinoma associated with Paget's disease (**Figure 4**). There was metastasis in one of the 16 right axillary nodes and no metastasis of the 18 left axillary nodes. Immunohistochemically, the estrogen receptor (ER) or progesterone receptor (PR) was negative and C-erbB-2 was positive in the right breast



**Figure 1.** Mammography of the right and left breast (MLO).

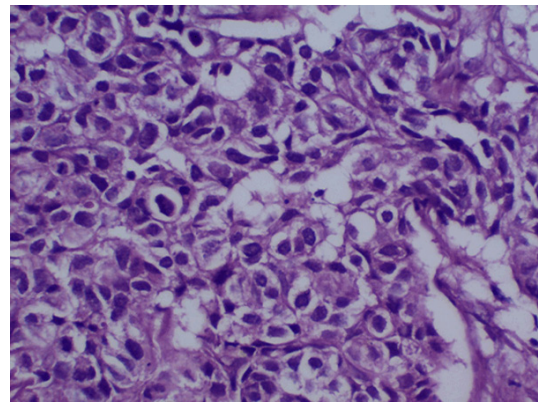


**Figure 2.** Anatomopathological results of phyllodes tumor in the left breast.

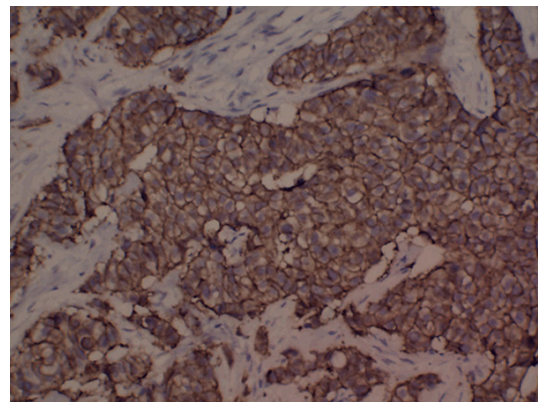


**Figure 3.** Histological results of phyllodes tumor in the left breast.

lesion (**Figure 5**); the ER, PR, and C-erbB-2 of the malignant phyllodes tumor cells were total negative.



**Figure 4.** Histological results of infiltrating ductal carcinoma in the right breast.



**Figure 5.** The expression of the C-erbB-2 in the right breast carcinoma.

The patient also received the postoperative adjuvant chemotherapy, which included six cycles of the TA regimen (docetaxel and pirarubicin). To date, we have not found any recurrence or metastases of the tumor.

### Discussion

The phyllodes tumor rare in the breast, accounts for less than 1% of all cases of breast cancer [1]. The most common presentation of the phyllodes tumor a palpable breast mass that may berapidly growing for a short time. The most mass of patient is smooth, round, well-defined, and it is not common for it to be painful. Invasion of the chest wall and metastatic involvement of axil-lary lymph nodes have been reported but are very uncommon [2, 3].

Pathologically, the important histologic features of phyllodes tumor relate to the strom. It is broadly classed benign, borderline, and

malignant, based on features of the tumor such as necrosis, margins, cellular atypia and stromal overgrowth [4]. On average, more than 50% are categorized as benign and approximately 25% as malignant in most large series [4, 5]. The surgery is the best way to treatment for the malignant phyllodes tumor. Wide local excision with margins of greater than 1 cm is the preferred primary treatment being very necessary [2, 4, 6]. Simple mastectomy may be required to achieve this. The current literature supports treating phyllodes tumors by the chemotherapy or hormonal has no proven role [6].

Based on data from large cases series, it is estimated that approximately 25% of patients with malignant phyllodes tumors will develop distant disease. Metastasis of it occurs mainly to the lung, bone, and abdominal viscera [5], although metastases have been reported in the thigh and oral cavity [7].

The synchronous coexistence of malignant phyllodes tumor in one breast and breast carcinoma with Paget's disease the other breast is extremely rare. In fact, to our knowledge, this is first report to describe a case of Synchronous bilateral primary breast malignant phyllodes tumor and the breast carcinoma with Paget's disease. We know a little about the genetic abnormalities in phyllodes and Paget's disease. We could speculate that there is a genetic relationship between the two both lesions. Although oncogene activation and tumor suppressor gene inactivation are important mechanisms in the genesis, propagation, and spread of most cancers, the role of these processes in phyllodes tumor has not been previously explored. It is well known that allelic loss is a common early genetic alteration during tumor genesis.

### Disclosure of conflict of interest

None.

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