Phyllodes tumor of the breast with ductal carcinoma in situ

Dasari V. Manoj Bobby, H. T. J. P. Rao, S. Alam, N. Raghavendra, S. D. Hegde

Department of General Surgery, Kasturba Medical College, Manipal Academy of Higher Education, Mangalore, Karnataka, India

A 50-year-old female presented with a lump in the right breast of three years duration, which was slowly growing. Examination revealed a 30x36 cm lump filling all quadrants of the right breast with stretched skin, a bosselated surface, dilated veins and restricted mobility over the chest wall (due to size of the tumor?) [Figure 1]. There were no palpable axillary lymph nodes and a clinical diagnosis of phyllodes tumor was made. Fine needle aspiration cytology was reported as phyllodes tumor. A simple mastectomy was done and a 2.9 kg tumor was removed. There was no fixity of the tumor to the pectoralis major but it was fixed to the skin at some places. Histopathological examination revealed a typical ductal carcinoma in situ (comedo type pattern) within a phyllodes tumor [Figure 2]. 10 days after the previous surgery axillary lymph nodes were removed but upon histopathological examination, no malignancy was found in any of the nodes.

DISCUSSION

Phyllodes tumor has been a matter of debate due to its nomenclature, its pathological features and/or its behaviour. Phyllodes tumors are a group of circumscribed biphasic tumors (with both stromal and epithelial components present within the lesion), basically analogous to fibroadenomas, characterized by a double layered epithelial component arranged in clefts surrounded by an overgrowing hypercellular mesenchymal component typically organized in leaf-like structures. The term cystosarcoma phyllodes is currently considered inappropriate and potentially dangerous since the majority of these tumors follow a benign course. It is preferable to use the neutral term "phyllodes tumor", according to

Figure 1: A 50-yr-old female with typical features of phyllodes tumor clinically

Figure 2: Histopathological features of ductal carcinoma in situ (comedo type) within phyllodes tumour
Indian J Surg | December 2005 | Volume 67 | Issue 6

Manoj Bobby DV, et al.

the World Health Organization (WHO) classification of tumors of the breast (1981), with the adjunction of an adjective determining the putative behaviour based on histological characteristics. According to the more recent WHO classification of 2003, three subgroups of phyllodes tumors (benign, borderline, malignant) are recognized based on their main histological features: stromal hypercellularity, cellular pleomorphism, mitosis, margins, stromal pattern, and heterologous stromal differentiation. Heterologous differentiation such as liposarcoma, osteosarcoma, chondrosarcoma or rhabdomyosarcoma may occur and these changes should be indicated in the diagnostic report.

In malignant cases, although there may be stromal overgrowth, remnants of the epithelial element can still be identified. Due to overgrowth of the sarcomatous components, the epithelial component may only be identified after examining multiple sections.

Malignant epithelial transformation (ductal carcinoma in situ or lobular carcinoma in situ and their invasive counterparts) is uncommon in phyllodes tumor.[1] The carcinoma can be found totally within the phyllodes tumor, within the phyllodes tumor but extending outside, or as a collision of phyllodes tumor and a ductal or lobular carcinoma.

Clinical features of phyllodes tumor are - a typically very large lobulated tumor not attached to the skin or underlying tissues, with dilated veins in the skin and no axillary lymph node metastases (only recorded in 10-15% in cases of systemic disease).

Phyllodes tumors are treated with a wide local excision; a margin of 1cm is advised to prevent recurrence. Wide local excision with an adequate margin of normal breast tissue is sufficient for most cytologically malignant phyllodes tumors but if there is any question of invasion of the fascia, the tumor should be removed together with the underlying muscle.[2,3] There is no need for removal of the axillary nodes, except for the exceptional instances in which they are clinically involved. Modified radical mastectomy is also advised in large tumors involving the whole breast or with association of epithelial malignancy. In cases of associated epithelial malignancy, adjuvant therapy is required depending on the final stage of the tumor.

REFERENCES