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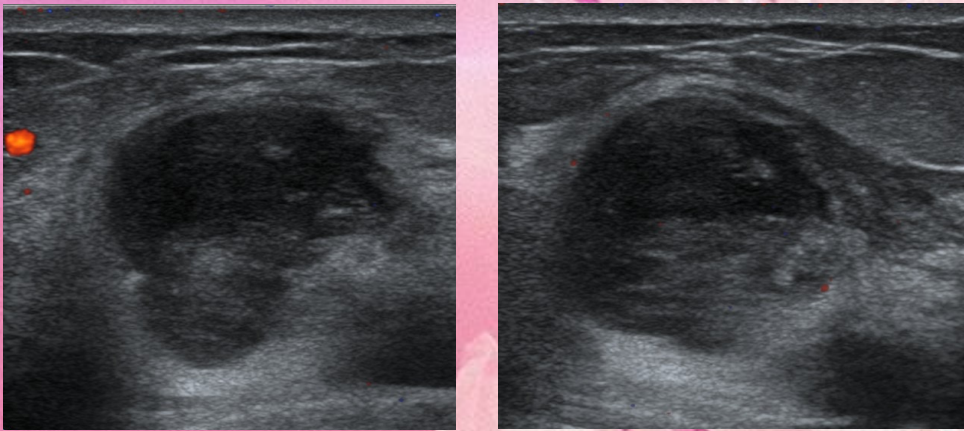
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## Introduction:

Phyllodes tumours of the breast, first dubbed cystosarcoma phyllodes are rare fibroepithelial tumours, accounting for less than 1% of all breast neoplasms. The World Health Organization (WHO) classified these tumours into three categories, i.e benign, borderline and malignant based on histopathological features. Benign phyllodes tumour comprised most of the tumours (35-64%), whereas the incidence of malignant phyllodes tumour is 25%. Imaging features of benign phyllodes tumour include well-circumscribed margin and homogenous echotexture, whereas malignant phyllodes tumour often demonstrate irregular margin, intratumoral cystic spaces, heterogenous echotexture and internal vascularity. We present 4 cases of female patients initially presented with breast lump.

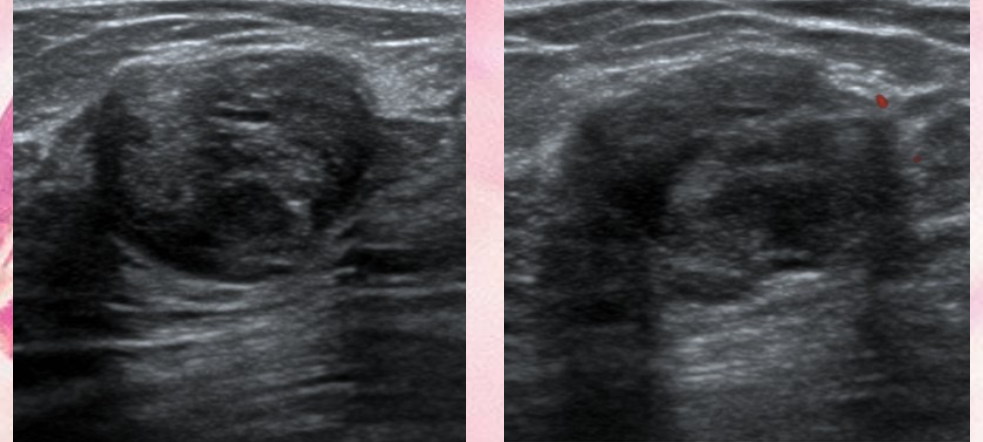
### Case 1

A 46-year-old lady with early menarche. Histopathological examination came back as malignant phyllodes tumour with background of fibrocystic changes. Mammogram showed a well-defined equal-density lesion. Ultrasound showed a lobulated mass with partially circumscribed margin, heterogenous internal echo and intratumoural cystic spaces.



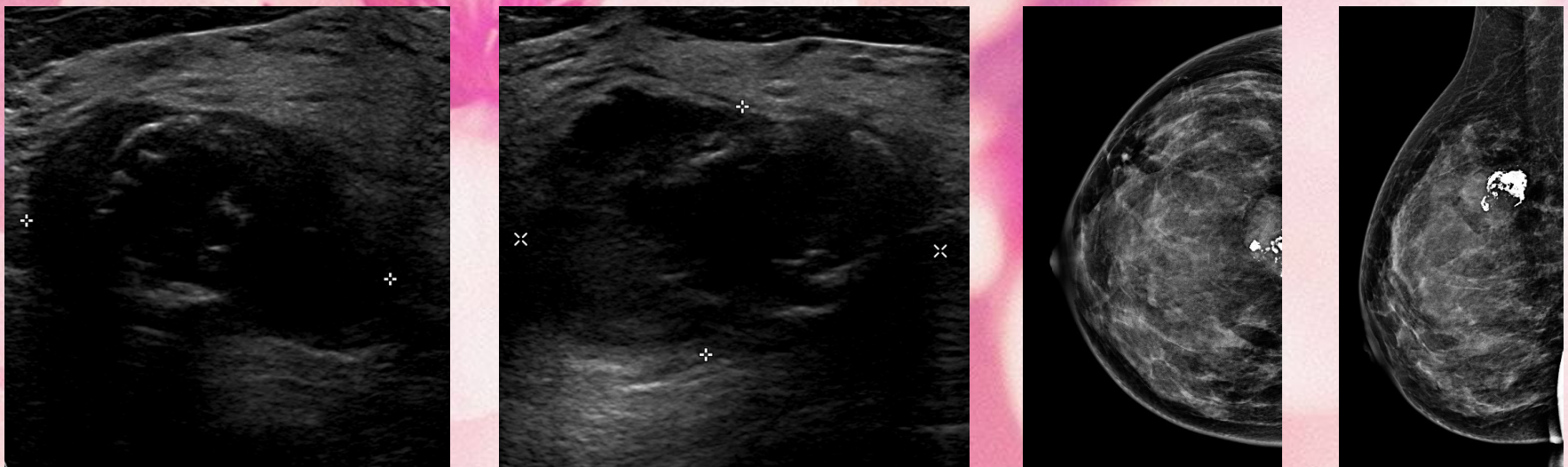
### Case 2

A 46-year-old lady who previously consumed oral contraceptive pills for 2 years. Histopathological examination of the lesion confirmed as benign phyllodes tumour. Mammogram showed an equal density lesion. Ultrasound revealed a well-defined oval lesion with heterogenous echotexture but no intralesional cystic spaces.



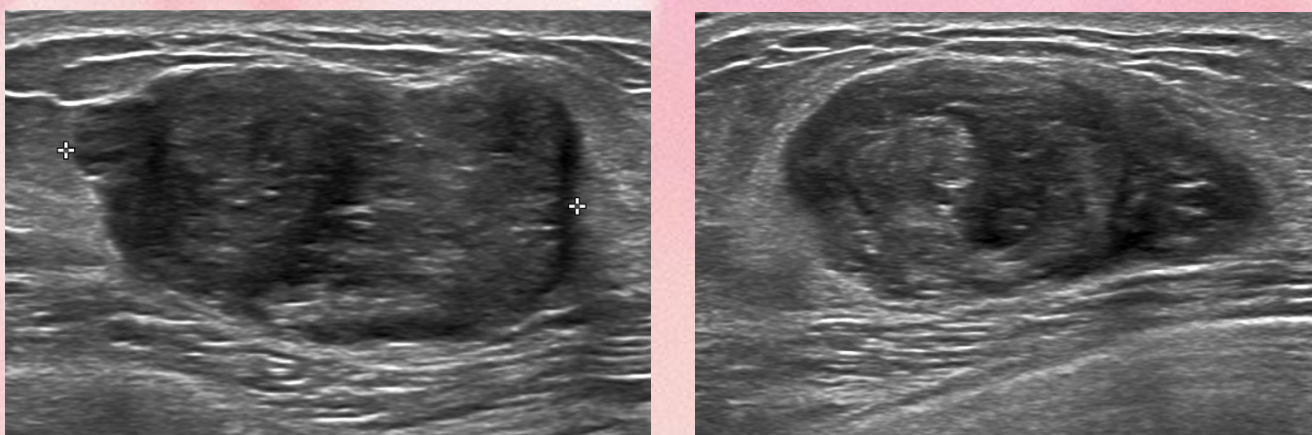
### Case 3

A 36-year-old lady with early menarche. Histopathological examination came back as malignant phyllodes tumour with background of fibrocystic changes. Mammogram showed a high-density lesion associated with multiple dystrophic calcifications. Ultrasound showed a heterogenous mass with irregular margin and posterior shadowing.



### Case 4

A 46-year-old lady with no risk factor for breast cancer. Histopathologically the lesion was confirmed as benign phyllodes tumour. Mammogram showed a high-density lesion. Ultrasound showed a well-defined, lobulated lesion with heterogenous echotexture and intralesional cystic spaces.



## Discussion

The term phyllodes tumor represents a broad range of fibroepithelial diseases and presence of an epithelial component with stromal components differentiates the phyllodes tumor from other stromal sarcomas. Unlike carcinoma breast, phyllodes tumors start outside of the ducts and lobules, in the breast's connective tissue, called the stroma which includes the fatty tissue and ligaments that surround the ducts, lobules, and blood and lymph vessels in the breast. In addition to stromal cells, phyllodes tumors can also contain cells from the ducts and lobules.

Differential diagnosis for sonographic appearance of phyllodes tumour can be fibroadenoma, adenoma, hamartoma, lipoma, juvenile papillomatosis, carcinoma, sarcoma and metastatic tumour. Understanding the clinical and sonographic features of this tumour may assist the radiologist in predicting biologic behaviour and anticipating pathologic concordance of the lesion after biopsy.

Malignant phyllodes tumors, if inadequately treated, have a propensity for rapid growth and metastatic spread. In contrast, benign phyllodes tumors on clinical, radiological, and cytological examination are often indistinguishable from fibroadenomas and can be cured by local surgery. With the nonoperative management of fibroadenomas widely adopted, the importance of phyllodes tumors today lies in the need to differentiate them from other benign breast lesions.

## Conclusion

In conclusion, benign and malignant phyllodes tumours manifest several differentiating features sonographically though some of the features may overlap. Lesion margin, internal echoes and vascularity as well as presence of liquefaction may help to identify different pathological grades of phyllodes tumour. This is crucial due to diverse potential for recurrence and metastasis.

## References

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