

THE GROWING FIBROADENOMA-TO REBIOPSY OR NOT?

BACKGROUND:

- Fibroadenomas (FA) are extremely common benign fibroepithelial tumours of the breast that account for 50% of all breast biopsies. They are the product of hyperplastic processes rather than a true neoplasm.
- Natural history suggests that 25% of these lesions will enlarge.
- A core biopsy- proven FA that continues to enlarge poses a management quandary; There is a risk, albeit rarely, that the lesion: (i) may be a phylloides tumour misdiagnosed as a FA, (ii) contains an associated malignancy in the epithelial component due to malignant transformation.
- Surgical removal of all growing FA's to obviate this risk may subject these young patients to unnecessary procedures, post-operative complications and distorting scars and place a huge burden on surgical services.
- There are no current guidelines concerning an acceptable growth rate of biopsy proven FA of when to safely follow up with imaging vs. re-biopsy

AIM:

The purpose of this study was to determine the incidence of malignancy in the growing FA at our institute and thus establish an interval growth percentage threshold at which a repeat core biopsy is warranted.

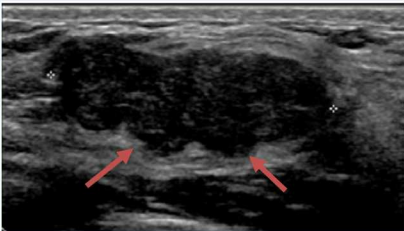


Fig 1 3.5 x 2.5 cm lobulated lesion on ultrasound with appearances in keeping with a FA or phylloides tumour. The lesion was previously biopsied and proven to be a FA however has now enlarged.

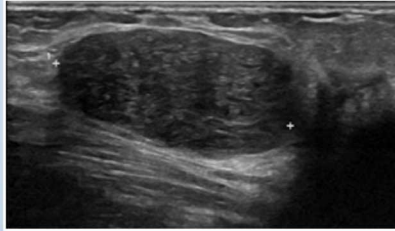


Fig.2 In the upper outer quadrant, a 3 cm well circumscribed hypoechoic lesion in keeping with a FA

IMAGING FEATURES:

- **Ultrasound:** Well circumscribed, round or ovoid. Macrolobulated. Uniformly hypoechoic
- **Mammography:** Well circumscribed, oval mass. Hypo or isodense. Involving fibroadenomas may display calcification.

METHOD

- A retrospective review of all biopsy proven B2 FA using RIS, PACS and pathology database was performed to identify any growing fibroadenoma over a 3 year period.
- B3 lesions at initial biopsy were excluded.
- Maximum single dimension at T0 (time of initial core biopsy) and T1 (time at largest measurement) were recorded.
- Percentage growth and length of time was recorded.

RESULTS:

- 122 patients were identified over 3 years.
- The mean age was 32 yrs.
- Mean T0 was 18mm (range 3-60mm).
- Average interval growth was 62% with a time to repeat biopsy of 34 months (range 2mths – 8 years). 4 patients developed subsequent benign phylloides (3,2% incidence, all with % growth >30%) with no malignant transformation.

DISCUSSION:

- Literature suggests that FA's may be safely followed up with a mean change in dimension of 20% over a 6 month period for all ages. FA's may enlarge due to natural progression, possible development of epithelial malignancy or misdiagnosed phylloides.
- We found no incidence of malignancy on rebiopsy of B2 FAD over a 3 year period.
- Our study recommends re-biopsy of B2 FAD only when there is a size increase of > 30%.and over a 6 month period.

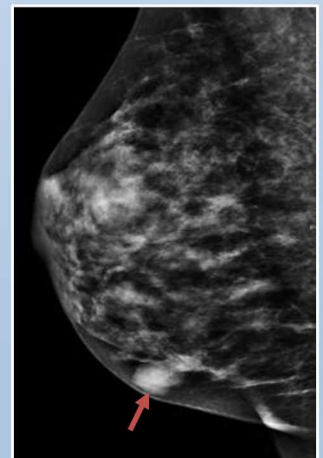


Fig. 3 . Well defined lobulated mass on mammography

References:

1. Sanders, L.M. and Sara, R., 2015. The growing fibroadenoma. Acta radiologica open, 4(4), p.2047981615572273.
2. Dialani, V., Chansakul, T., Lai, K.C., Gilmore, H., Sayegh, N.Y. and Slanetz, P.J., 2019. Enlarging biopsy-proven fibroadenoma: Is surgical excision necessary?. Clinical imaging, 57, pp.35-39.
3. Greenberg, R., Skornick, Y. and Kaplan, O., 1998. Management of breast fibroadenomas. Journal of general internal medicine, 13(9), pp.640-645.