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# Excision of Breast Fibroepithelial Lesions: When is it still necessary?

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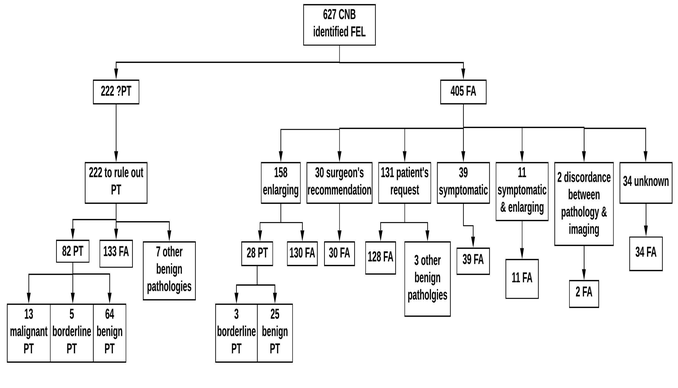
## Introduction

- Fibroepithelial lesions (FEL) range from benign fibroadenoma (FA) to malignant phyllodes tumor (PT).
- It is difficult to distinguish FA from PT on core needle biopsy (CNB) due to overlapping histological features.
- At times of histological ambiguity, pathologists may add a comment of concern to FEL, “cannot rule out PT” (?PT).
- FA over 3cm in size has been routinely excised to avoid missing PT. However, there is no literature support for this cut off.
- Primary objective is to assess whether the 3cm size cut off is justified and identify a low risk group that can be spared surgery. Second objective is to look for risk factors for upstaging to PT among all cases of FEL.

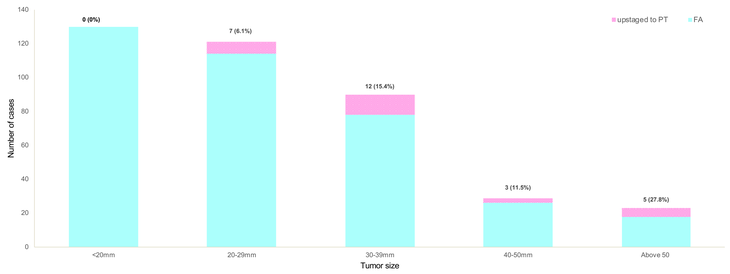
## Methods

- Chart review performed on a prospective database to identify patients with FEL on CNB between 2009-2018.
- Data including demographics, clinical presentation, reason for excision, radiology and pathology reports were collected
- Multivariable and univariable logistics regression analysis was done to identify upstage risk factors to PT.
- Tumor size was assessed based on upstage

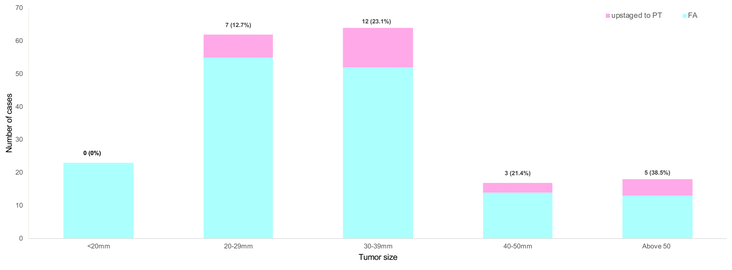



## RESULTS

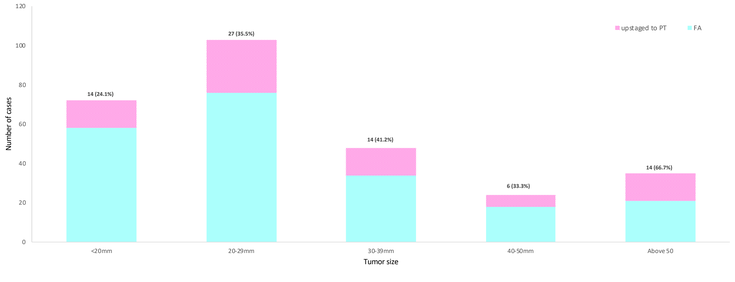
A ) Fibroadenoma




B) Enlarging Fibroadenoma




C) FEL cannot rule out PT

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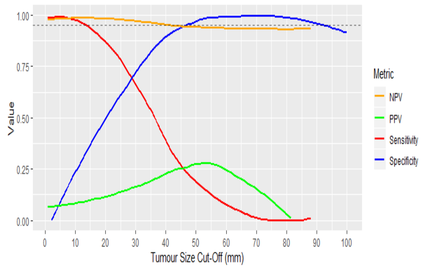
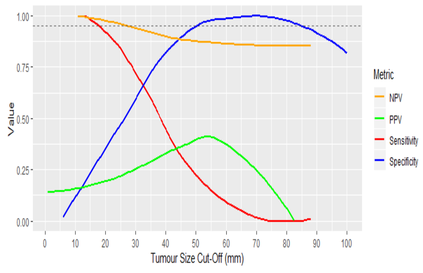
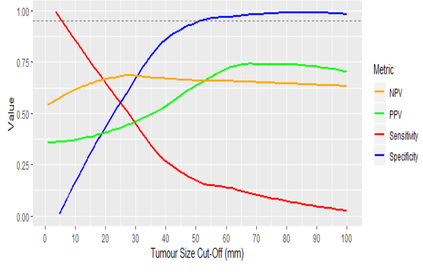



B) Enlarging Fibroadenoma




C) FEL cannot rule out PT




| Lesion on CNB | Imaging Size (mm) | Odds Ratio | Lower | Upper | P-Value |
|---|---|---|---|---|---|
| FA | < 30 | *REF* | *REF* | *REF* | *REF* |
| | 30 to 39 | 6.313 | 2.513 | 16.698 | <0.001 |
| | 40 to 49 | 3.525 | 0.510 | 15.256 | 0.126 |
| | 50 + | 13.219 | 3.948 | 42.848 | <0.001 |
| | Per cm increase | 1.758 | 1.396 | 2.245 | <0.001 |
| EFA | < 30 | *REF* | *REF* | *REF* | *REF* |
| | 30 to 39 | 3.417 | 1.184 | 10.671 | 0.026 |
| | 40 to 49 | 2.485 | 0.336 | 12.452 | 0.300 |
| | 50 + | 9.111 | 2.409 | 35.572 | 0.001 |
| | Per cm increase | 1.769 | 1.305 | 2.471 | < 0.001 |
| ?PT | < 30 | *REF* | *REF* | *REF* | *REF* |
| | 30 to 39 | 1.473 | 0.676 | 3.149 | 0.321 |
| | 40 to 49 | 0.526 | 0.116 | 1.749 | 0.337 |
| | 50 + | 5.110 | 2.059 | 13.983 | 0.001 |
| | Per cm increase | 1.198 | 1.056 | 1.382 | 0.008 |

## Discussion

- All 28 cases of FA that upstaged to PT were enlarging.
- We did not see any upstage in FA lesions smaller than 20mm and none of FA cases upstaged to malignant PT.
- Age and family history of adenocarcinoma of breast were not predictive of upstage to PT among FA cases.
- FA lesions smaller than 40mm and if enlarging smaller than 25mm did not upstage to PT in 95% of cases.
- The overall upstage rate of ?PT on CNB to PT was 36.9% and this is in keeping with the current literature that reports upstages in 18-42% range
- Tumor size is not a reliable predictor of upstage among ?PT cases.

## CONCLUSION

- Our data does not support routine excision of FAs at 3 cm.
- We now recommend excision of FELs if there is concern for PT on CNB, if FA are > 4 cm or enlarging FA > 2.5 cm and to address symptoms.

## References

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