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RAD PATH CLINICAL CORRELATION IN BREAST PATHOLOGY- DIAGNOSTIC AND PREDICTIVE ROLE OF CORES IN 276 WOMEN

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INTRODUCTION

- In 2005, a multidisciplinary international consensus conference concluded that PNB is the "optimal initial tissue- acquisition method and the procedure of choice for image-detected breast abnormalities."
- Currently, Core needle biopsy (CNB) is increasingly being used in the investigation of breast disease whether this is asymptomatic and suspected after screening mammography, or presents symptomatically in the patient.

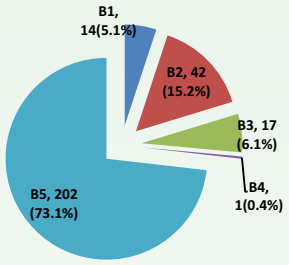
AIMS & OBJECTIVES

- To establish the spectrum of breast lesions diagnosed on image-guided core needle biopsies
- To determine the accuracy with respect to clinical and radiology (USG –Mammography) findings.

MATERIALS & METHODS

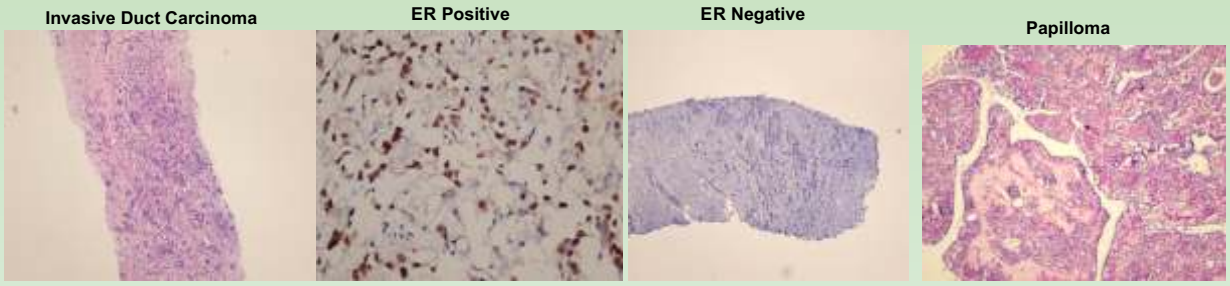
- Retrospective study of all the image guided core needle breast biopsies(CNB) received in last 2 years i.e. September 2014 to August 2016 The demographics, clinical details, fine needle aspiration findings and sonomammographyfindings were duly recorded. BIRADS(Breast Imaging-Reporting and Data System) score (1 to 6) was noted.
- The CNB received in 10% buffered formalin was appropriately grossed, processed and stained with routine H & E for microscopic evaluation.
- On histopathologicalexamination, the lesions were categorized as per UK National Health Service Breast Screening Program(NHSBSP), as B 1 : Normal tissue, B 2 : Benign lesions, B 3 : Lesions of uncertain malignant potential, B 4 : Suspicious & B 5 : Malignant
- In malignant lesions, Grading (ScarffBloom Richardson) and reflex immunohistochemistry for receptor status were performed. The findings were correlated with clinical suspicion and BIRADS score before signout.

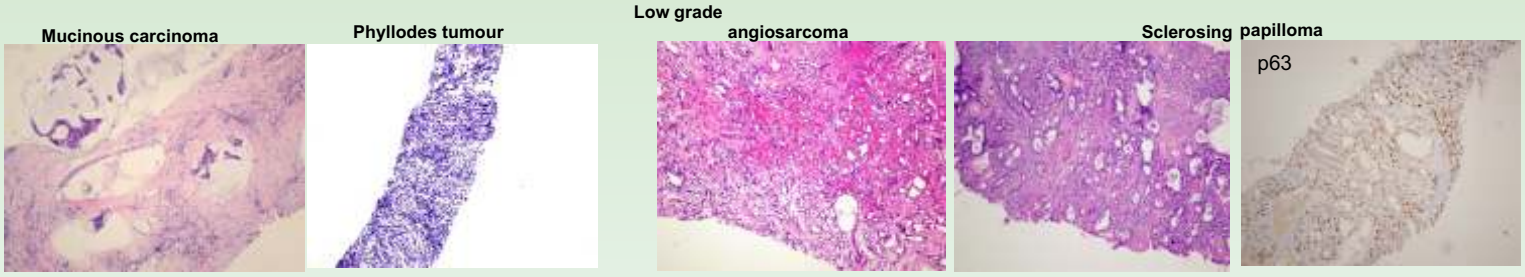
LESION	NUMBER(%)
B1	14(5.5)
B2	42(5.2)
B3	17(6.1)
B4	1(0.4)
B5	202(73.1)
Total	276



RAD SCORE	NHSBSP SCORE	Number	Discordance
BIRADS 1	NA	NA	
BIRADS 2	B2	4	0
BIRADS 3	B3	1	25%
	B1	1	
	B2	4	
	B5	2	
BIRADS 4	B1	1	34.30%
	B2	4	
	B3	6	
	B5	21	
BIRADS 5	B5	57	1.70%
	B2	1	
Total		102	

B2 LESIONS	No.
Duct Ectasia	4
Mastitis	21
Fibroadenoma	13
Fibrocystic disease	4
TOTAL	42
B3 LESIONS	**No.**
Atypical Ductal hyperplasia	3
Phyllodes tumours	6
Papilloma	1
Fibroadenosis	3
Sclerosing Papilloma	1
PASH	2
Stroma fibrosis	1
TOTAL	17
B5 LESIONS	**No.**
Invasive Duct Carcinoma	183
Duct carcinoma in situ	4
Mucinous carcinoma	2
Mixed mucinous and invasive carcinoma	1
Invasive Lobular carcinoma	5
Intracystic papillary carcinoma	3
Malignant phyllodes	2
Metaplastic carcinoma	1
Low grade angiosarcoma	1
TOTAL	276





DISCUSSION

- With the gain in popularity of Image guided CNB , this is an effort to study & share the accuracy.
- In this study , malignancy was diagnosed in 73.1% cases. This is higher than other studies of CNB where malignancy ranged from 33.4 to 34.2%. This is because CNB was based on either clinical or radiological suspicion and not as a screening test.
- The discordance is high in the BIRADS category 3 and 4. This is also evident in other similar studies where malignancy rate was quite variable , ranging from 2 to 19 % for BIRADS 3 and 15 to 35 % for BIRADS 4.
- In our study, 34.3% cases were actually benign but were classified as BIRADS 4 .

Taskinet al studied 172 histologically histologicallybenign lesions which were which were categorized as BIRADS 4. Due to better fixation of small tissue the IHC results are also superior & management can be planned

CONCLUSION

- A wide spectrum of lesions can be diagnosed on tru-cut biopsies of breast.
- Image-guided core needle biopsy plays a significant role in the diagnosis of breast lesions when used as an adjunct to clinical examination and sonomammography findings.
- Immunohistochemistry can be promptly performed in the biopsy and has a predictive and prognostic role
- Due to better fixation of small tissue the IHC results are also superior & management can be planned

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