ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 11, Issue, 08, pp.6248-6250, August, 2019

DOI: https://doi.org/10.24941/ijcr.36293.08.2019

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

BENIGN BREAST DISEASES-A CLINICOPATHOLOGICAL STUDY

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ARTICLE INFO

Article History:
Received 26th May, 2019
Received in revised form
20th June, 2019
Accepted 11th July, 2019
Published online 31st August, 2019

Key Words:
Benign Breast Diseases,
Fibroadenoma.

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ABSTRACT

Background: To study the patterns of benign breast disease with is co-relation with pathology findings. **Material and methods:** A total of 300 female suggestive of benign breast disease were refered to pathology department. **Results:** Highest incidence in age group 21-30, commonest presentation is breast lumps fibroadenoma was commonly observed followed by ibroadneosis. **Conclusion :**Benign breast disease is a common problem in female, fibroadenoma is the commonest of them .diagnostic accuracy of FNAC is high in the diagnosis of benign breast diseases

***Citation: Nasheen Bagali and Maheboob Bagali,* 2019.** "Benign Breast Diseases-A Clinico Pathological Study Nasheen Bagali, Maheboob Bagali", *International Journal of Current Research*, 11, (08), 6248-6250.

INTRODUCTION

Benign breast diseases includes a heterogeneous group of conditions which range from normal, to aberrations in the physiology, to frank disease (Mima Maychet, 2013). Benign Breast Diseases is more prevalent than breast cancer and is a most common cause of breast problems (Khemka *et al.,* 2009; Cole *et al.,* 1978; Hutchinson, 1980; Kelsey, 1990; Sarnelli, 1991; Cook, 1985; Mansel, 1982). The patients of BBDs generally present with one or more of these complaints-breast lumps, breast pain or nipple discharge. Triple assessment, which includes clinical examination, imaging and Histopathological examination is now considered a gold standard approach to the diagnosis of breast lump. Early diagnosis and prompt treatment will avoid unnecessary surgery and patient's anxiety of having breast lump as carcinoma will be relieved (Selvakumaran, 2017). The popular classification of BBDs according to the Aberration of the Normal Development and Involution (ANDI) causes confusion due to a lack of clarity in distinguishing between the normal physiological changes and the pathologic ones. One of the more satisfying classifications would be the one which was devised by Love S *et al.,* (Bharti Saraswat; Foncroft, 2001), the so-called Nashville classification. According to this, BBDs is classified by 2 systems. Pathologically, BBDs is divided into (a) non-proliferative lesions, (b) proliferative lesions without atypia and (c) atypical proliferative lesions. Clinically, BBDs is classified as (a) physiologic swelling and tenderness, (b) nodularity, (c) breast pain, (d) palpable lumps, (e) nipple discharge and (f) infections or inflammation. Here we are presenting our experience regarding benign breast disease (Bharti Saraswat)

MATERIALS AND METHODS

This prospective study was conducted in department of pathology in AL Ameen Medical college in January 2015 to December 2018. 300 cases of benign breast disease came to pathology department for FNAC or Histopathology were enrolled in this study .detailed history and clinical examination and investigations like FNAC, USG, Mammography Core needle biopsy were carried out to confirm the diagnosis. The FNAC smears were reported by using standardized diagnostic criteria by the same pathologist and they were categorized into non proliferative/proliferative without atypia/atypical proliferative lesion/frank carcinoma. The clinical diagnosis, particularly in the case of the benign breast lumps was compaired with the cytological or the histological findings and the accuracy of the clinical diagnosis was evaluated.

RESULTS

A total of 300 female suggestive of bening breast disease were refered to pathology department for FNAC or core needle biopsy were studied. The age distribution of the patients is given in table no.2.maximum cases are reported between age group of 21-30yrs youngest is 6yrs and oldest is 60 yrs. The commonest presentation was breast lumps which comprised

Table 1. Age-wise distribution of benign breast disease

Age range(yrs)	No. of cases	Percentage
0-10	3	1%
11-20	36	12%
21-30	144	48%
31-40	96	32%
41-50	15	5%
51-60	6	2%

Table 2. Different type of presentation and their incidence

Presentation	No. of patients	Percentage (%)
1.Breast lump only	192	64%
2.Breast lump+pain	54	18%
3.Breast lump+ Nipple discharge	12	4%
4. .Breast lump+ pain+Nipple discharge	15	5%
5.Breast pain only	24	8%
6.Nipple discharge only	3	1%
TOTAL	300	100%

272 (91%) cases, out of which 81 (27%) had associated complaints like breast pain and nipple discharge. More than one symptom was present for the same patient. Among 93 (31%) patients with breast pain, 24 (8%) patients complained of breast pain (mastalgia) only, who were treated by using a conservative approach or reassurance.

Table 3. Incidence of different types of benign breast disease

Diagnosis	No. of BBD	Percentage
Fibroadenoma	146	48.66%
Fibrocystic changes/fibroadenosis	49	16.33%
Breast abscess	27	9%
Mastalgia	25	8.33%
Nipple discharge Intraductal Papilloma Mammary duct Ectasia	22	7.33%
Acessory Breast	8	2.66%
Mastitis	9	3%
Galactocele	6	2%
Proliferative disease With atypia	4	1.33%
Proliferative Disease with Florid hyperplasia	3	1%
Invasive ductal carcinoma	1	3%

The rest had associated complaints like breast lumps and nipple discharges. Half of these had pain in both the breasts. The pain was cyclical in 60 patients and it was non-cyclical in 39 cases. Among the 30 cases with nipple discharges, only one case presented with nipple discharge only, without any associated lump or pain. The nipple discharge was blood in 9 cases and it was serosanguinous fluid in 12 cases, and only one casehad a yellow discharge. The cause for 6 cases was intraductal papilloma and for the rest, it was mammary duct ectasia. In our study fibroadenoma were observed in 48.66%, Fibrocystic changes/fibroadenosis 16.33%,Breast abscess 9%, Mastalgia 8.33%, Nipple discharge (Intraductal Papilloma Mammary duct Ectasia) 7.33%, Acessory Breast 2.66%, Galactocele 3%, Prolifearative Disease with atypia 1.33%,Proliferative Diease with Florid hyperplasia 1% & Invasive ductal carcinoma 3%.

Clinical and histocytological correlations: The diagnosis of the lump were confirmed either cytologically or histologically, or both ways. FNAC was done in 261 cases. FNAC and biopsy were done in 195 cases. The accuracy of the clinical diagnosis of fibroadenoma was 94% (137 out of 146cases).among 195 cases of excised biopsies, 10 cases were reported as proliferative lesions with atypia. 6 FNAC cases of proliferative lesions with atypia were missed cytologically and they were subsequently diagnosed by HPE. The clinical diagnosis of fibrocystic changes were made in 51 cases and 49 of them were correct. One of them was reported by HPE as proliferative lesion with atypia and the oldest lady of this group was reported as invasive ductal carcinoma, for whom treatment was given in our hospital and they were advised follow up. So, the diagnosis was wrong in these two cases of fibrocystic changes. 9 of the non-tender breast lumps which were clinically reported as fibroadenomas, were diagnosed by HPE as proliferative disease with atypia in 6 cases and 3 was diagnosed as florid hyperplasia. On the whole, the clinical diagnosis was correct in 252 out of the 261 patients with benign breast lumps (96.55% accuracy).

DISCUSSION

A total of 300 female suggestive of benign breast disease were referred to pathology department AL Ameen medical college bijapur for FNAC or core needle biopsy were studied, during period of 2015 to 2018. The age distribution of the patients is given in table no.1.maximum cases are reported between age group of 21-30yrs youngest is 6yrs and oldest is 60yrs. This is similar with study conducted by Narayan Das *et al.* in which 45% of the cases belonged to the age (Foncroft, 2001). The incidence of benign breast diseaes begins to rise in the 2nd decade and it peaks in the 4th or 5th decades as compared to the malignant lesions. For which the incidence continues to rise after menopause (Londen; Mcdivitt, 1992; LaVecchia, 1985). The commonest presentation was breast lumps which comprised 272 (91%) cases, out of which 81 (27%) had associated complaints like breast pain and nipple discharge. More than one symptom was present for the same patient. Among 93 (31%) patients with breast pain, 24 (8%) patients complained of breast pain (mastalgia) only, who were treated by using a conservative approach or reassurance. The rest had associated complaints like breast lumps and nipple discharges. Half of these had pain in both the breasts.

The pain was cyclical in 60 patients and it was non-cyclical in 39 cases. Among the 30 cases with nipple discharges, only one case presented with nipple discharge only, without any associated lump or pain. The nipple discharge was blood in 9 cases and it was serosanguinous fluid in 12 cases, and only one case had a yellow discharge. The cause for 6 cases was intraductal papilloma and for the rest, it was mammary duct ectasia. In study conducted by Foncroft *et al.,* 87.4% of the women attending the Wesley Breast Clinic presented with breast lumps (Foncroft, 2001) D2 In the study conducted by Ratana Chaikanont *et al.* breast lump was the presenting symptom in 72.35% of the patients (Ratana chaikamont, 2005). In our study fibro adenoma were observed in 48.66%, Fibrocystic changes/fibroadenosis 16.33%,Breast abscess 9%, Mastalgia 8.33%, Nipple discharge (Intraductal Papilloma Mammary duct Ectasia) 7.33%, Acessory Breast 2.66%, Galactocele 3%, Prolifearative Disease with atypia 1.33%, Proliferative Diease with Florid hyperplasia 1% & Invasive ductal carcinoma .3%. Our result were similar with study conducted by shukla et al showed fibroadenoma 46.4%, cystosarcoma phylloides 0.6%, duct papilloma 0.9%, fibroadenosis 14.3%, lobular hyperplasia 0%, sclerosing adenosis 0%, fibrocystic disease 0%, cysts 7.9%, fibrosclerosis 7.4%, duct Ectasia 7.6% chronic abscess 7.8%, tuberculosis 5.1%, filariasis 0.1% cysticercosis 0.1%, fat necrosis 1.2%, Galactocele 0% (Selvakumaran, 2017). The diagnosis of the lump were confirmed either cytologically or histologically,or both ways. FNAC was done in 261 cases. FNAC and biopsy were done in 195 cases.The accuracy of the clinical diagnosis

of fibroadenoma was 94% (137 out of 146 cases).among 195 cases of excised biopsies, 10 cases were reported as proliferative lesions with atypia. 6 FNAC cases of proliferative lesions with atypia were missed cytologically and they were subsequently diagnosed by HPE. The clinical diagnosis of fibrocystic changes were made in 51 cases and 49 of them were correct. One of them was reported by HPE as proliferative lesion with atypia and the oldest lady of this group was reported as invasive ductal carcinoma, for whom treatment was given in our hospital and they were advised follow up. So, the diagnosis was wrong in these two cases of fibrocystic changes. 9 of the non-tender breast lumps which were clinically reported as fibro adenomas, were diagnosed by HPE as proliferative disease with atypia in 6 cases and 3 was diagnosed as florid hyperplasia. On the whole, the clinical diagnosis was correct in 252 out of the 261 patients with benign breast lumps (96.55% accuracy). Our results were similar with study conducted by Mima Maychet *et al.* they observed. The accuracy of the clinical diagnosis of fibroadenoma was 92% (48 out of 52 cases). Among the 65 cases of excised biopsies, 3 cases were reported as proliferative lesions with atypia. Two FNAC cases of proliferative lesions with atypia were missed cytologically and they were subsequently diagnosed By HPE. In there study, 3 patients with breast lumps had proliferative lesion with atypia on the biopsy samples which were taken (Mima Maychet, 2013). The findings of our study were almost the same as Mima Maychet B. et al. (2013). In the study of Dupont and page atypical hyperplasia was identified in only 4% of the biopsy samples (Dupont, 1985).

Conclusion

In female benign breast disease is a common problem as compared to malignancy, and is usually underestimated entity. Fibroadenoma is the commonest of among them. FNAC is highly accurate in the diagnosis of benign breast diseases.

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