STUDY OF CLINICOPATHOLOGIC PROFILES OF PATIENTS WITH BENIGN BREAST DISEASE

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Abstract

Introduction: In mammals, mammary glands or breasts are unique feature. In females growth and development of breast depend upon various hormones and various physiological statuses like lactation, pregnancy. About 30% of the women who suffer from BBDs will require treatment at some time in their lives. In female, after puberty Breast undergoes cyclical changes throughout reproductive life. From the onset of puberty till menopause there are changes in Hormones and growth factors causing significant morphological changes leading to Aberration in Normal Development and Involution (ANDI) causing majority of benign breast diseases. In benign breast disease there are most of the lesions are with variety of lesions as fibrocystic disease, cystic disease, cystic mastopathy, cystic mastitis, mammary dysplasia, benign breast disease. There are many studies which showed that the relationship between BBDs and breast cancer. According to the grading of the BBDs there is varies between Risk of cancer.

Aim: The main objective of this study was nature of benign breast diseases in females with different of pathological presentations.

Material and Methods: Present study was conducted in the department of surgery in collaboration with the department of pathology in our hospital in duration of one year. In this study altogether 100 women were treated for benign breast diseases attending to hospital as in patient department (IPD) and out patients department (OPD) of our hospital. In this study inclusion criteria included as only female patients with any benign diseases of the breast as breast pain, breast lump and nipple discharge. From all the patients complete clinical history was collected and also physical examinations were done.

Result: The patients were divided into four groups with different symptoms or presentation such as a breast pain, breast lump, nodularity, and nipple discharge. In this study breast lump was the most common presentation as 70% followed by Nodularity of breast and Breast pain as 16 % and 12% respectively. Fibroadenoma was found as most common benign breast disease as 53% and with the age between 21 to 30 years showed more as 27 % followed by Fibroadenosis, Mastalgia and Breast abscess as 20%, 11% and 9% respectively. Whereas according to the age group followed by 31-40 years old and 41 – 50 years old. Other benign breast diseases include as Antibioma, Simple Cyst and Duct papilloma which was least in percentage as well as least in years also.

Conclusion: In the females, benign breast diseases are one of the most common diseases which showed as lump in breast is commonest presentation. In the BBDs there showed many clinical symptoms as Breast pain, nodularity and nipple discharge. Hence, there is a necessary for the female to educated about Breast self examination and health education and also factors responsible for this change needs further study and research.

Keywords: Benign breast diseases, Breast, Fibroadenoma, Fibrocystic disease

Introduction:

In mammals, mammary glands or breasts are unique feature. In females growth and development of breast depend upon various hormones and various physiological statuses like lactation, pregnancyⁱ. Benign breast diseases (BBDs) is defined as group of disorder which comprises of non-cancerous condition including physiological swelling, infection or inflammation, cyclical mastalgia, palpable lumps and nipple discharge. In female this BBDs is most common problem than malignant diseases^{ii, iii, iv & v}. About 30% of the women who suffer from BBDs will require treatment at some time in their lives^{vi}. In facts most of the females were neglected benign breast disease which constitutes the majority of breast complaints^{vii}.

In female, after puberty Breast undergoes cyclical changes throughout reproductive life. From the onset of puberty till menopause there are changes in Hormones and growth factors causing significant morphological changes leading to Aberration in Normal Development and Involution (ANDI) causing majority of benign breast diseases^{viii}. In benign breast disease there are most of the lesions are with variety of lesions as fibrocystic disease, cystic disease, cystic mastopathy, cystic mastitis, mammary dysplasia, benign breast disease^{ix}.

According to the studied of Love S et al the popular classification of BBDs is the Aberration of the Normal Development and Involution (ANDI) with a new scoring system^x also called as Nashville classification. BBDs clinically classified as breast pain, Physiological swelling and tenderness, nipple discharge, palpable lump & infection or inflammation. Though, it is not life threatening but also required appropriate

treatment which avoided unnecessary long term follow up^{xi}.

There are many studies which showed that the relationship between BBDs and breast cancer. According to the grading of the BBDs there is varies between Risk of cancer^{xii, xiii}. For histopathological examination Fine needle aspiration cytology (FNAC) of breast is done and beside this biopsies and mastectomy specimens are frequently done. There are many lesions which are suspected as malignant lesions but diagnosed as benign after Histopathological examination. According to new system of Aberrations of Normal Development and Involution (ANDI) described by the Cardiff breast clinic, in Wales^{xiv}.

The main objective of this study was nature of benign breast diseases in females with different of pathological presentations.

MATERIAL AND METHODS:

Present study was conducted in the department of surgery in collaboration with the department of pathology at K.M. Medical College and Hospital, Mathura (UP) in our hospital in duration of one year. In this study altogether 100 women were treated for benign breast diseases attending to hospital as in patient department (IPD) and out patients department (OPD) of our hospital. In this study inclusion criteria included as only female patients with any benign diseases of the breast as breast pain, breast lump and nipple discharge. From all the patients complete clinical history was collected and also physical examinations were done.

The patients with all age group were included in this study. From all the patients complete clinical history was collected and also physical examinations were done. All patients' data with

the operative and discharge record were correlated with the case notes wherever necessary. In this study exclusion criteria as female patients with any obvious malignant disease and treated for malignancy earlier or operated.

From all the patients' detailed history of all patients were recorded and with the help of combination of clinical assessment, radiological imaging and tissue as sample taken for either cytological or histological analysis and noted.

RESULT:

In this study total 100 female patients were include with age between 10 to 60 years in the Dept. of Surgery at K.M. Medical College and Hospital, Mathura (UP). The patients were divided into four groups with different symptoms or presentation such as a breast pain, breast lump, nodularity, and nipple discharge. In this study breast lump was the most common presentation as 70% followed by Nodularity of breast and Breast pain as 16 % and 12% respectively as shown in table no 1 below.

Table 1: showing the incidence of benign breast diseases according to their presentation.

Presentation	No. of patients	Percentage
Breast pain	12	12
Breast lump	70	70
Nodularity of breast	16	16
Nipple discharge	2	2
Total	100	100

In the table no 2 below showed that Fibro adenoma was found as most common benign breast disease as 53% and with the age between 21 to 30 years showed more as 27 % followed by Fibroadenosis, Mastalgia and Breast abscess as 20%, 11% and 9% respectively. Other benign breast diseases include as Antiboma, Simple Cyst and Duct papilloma which was least in percentage as well as least in years also.

Table 2: Age-wise distribution of benign breast diseases.

Type of lesion	Age group in years					Percentage
	10-20	21-30	31-40	41-50	51-60	
Fibroadenoma	3	27	18	3	2	53
Fibroadenosis	3	5	12	0	0	20
Breast abscess	1	3	5	0	0	9
Mastalgia	0	8	3	0	0	11
Antibioma	0	1	3	0	0	4
Simple Cyst	1	0	1	0	0	2
Duct papilloma	0	1	0	0	0	1
Total	8	45	42	3	2	100
Percentage	8	45	42	3	2	100

DISCUSSION:

In this study generally patients of BBDs present with one or more of these complaints as breast pain, breast lump and nipple discharge but due to lack of education and awareness females ignore the lump. To make an early diagnosis, all the patients with breast lumps should undergo a

triple assessment^{xv}. In this study the common benign breast diseases was Fibroadenomas as it showed 53% whereas it was also common in the age group of 21 to 30 years old. Therefore fibroadenoma ranged from the 2nd to the 3rd decade of life which was also findings of the others researched.

This study also showed that easiest, earliest and most reliable method as FNAC which helped in making the diagnosis of benign breast diseases. The finding of this study also almost equivalent or similar to the others studies where the frequency of fibroadenoma ranged from 46.6-55.6^{xvi}. This studied showed Fibroadenomas as 53% which was slightly lower than the other studied showed by Kulkarni et al^{xvii}, Amr et al^{xviii} and Malik et al^{xix}.

This study showed maximum number of patients was in the age group of 21-30, followed by 31-40 years old as the mean age was 29.5 years old. The youngest patient was the age of 12 years and eldest patients was 59 years old which is almost equivalent to the other studies as conducted by Ayoade BA et al^{xx}, Siddiqui MS et al^{xxi} and Navneet Kaur et al^{xxii}.

In this study Fibroadenosis was the second most common lesion as 20 % followed by Mastalgia 11%. Duct papilloma as 1% was the least lesion present in the patients. The age between 51 to 60 years old showed the least no of cases which is equivalence to the study of Echejoh et al^{xxiii}. There are many other studied which showed the prevalence of fibrocystic disease and fibroadenoma of breast is quite variable and depend upon the environment and society. This study showed lower in percentage of fibrocystic disease than studies conducted as Jamal et al^{xxiv} from Saudi Arabia, Thakwaba et al^{xxv} from Nigeria, Adesunkanmi et al^{xxvi} and Chaudhuri et al^{xxvii} from India.

CONCLUSION:

In the females, benign breast diseases are one of the most common diseases which showed as lump in breast is commonest presentation. In the BBDs there showed many clinical symptoms as Breast pain, modularity and nipple discharge. Therefore, in this study benign breast diseases in females are fibroadenomas followed by fibrocystic changes. Hence, there is a necessary for the female to educated about Breast self examination and health education and also factors responsible for this change needs further study and research.

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