

Incidence of Common Benign Breast Diseases among 'ANDI Classification'

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ABSTRACT

Objectives: To observe the incidence of common benign breast diseases among 'ANDI classification' in patients attending DHQ hospital D.G Khan medical college D.G Khan and to compare the management provided, with international literature.

Study Design: Prospective Study.

Place and Duration of Study: This study was carried out in surgical outpatient department and surgical wards of DHQ hospital D.G Khan Medical College D.G Khan from June 2011 to May 2012.

Materials and Methods: This prospective study was carried out on female patients presenting with signs and symptoms of benign breast disease in surgical outpatient department and surgical wards of DHQ hospital D.G Khan medical college D.G Khan, in a period of 12 months from June 2011 to May 2012. A total of 100 patients were included in the study.

Results: During the 12 month study period, a total of 161 patients with suspected benign breast disease were evaluated and out of them 100 patients were included in study. As regards menopausal status, 93 (93%) were pre-menopausal and 7 (7%) patients were post-menopausal. Out of 100 patients, 69 (69%) were married and 31 (31%) women were unmarried. The age of the patients was 15-50 years. Incidence of Fibroadenoma was 62% and Mastalgia was found in 27 patients (cyclical 15 (55.5%) and non-cyclical 12 (44.5%).

Conclusion: In the modern era of advanced technology, most sophisticated procedures of diagnosing and treating the breast disease, like mammoscintigraphy and MRI are lacking in our institution. Provision will definitely benefit the patients and will provide an opportunity to surgeons to take appropriate decisions regarding the management of breast diseases.

Key Words: Benign breast diseases, Relative risk, Subsequent carcinoma.

INTRODUCTION

Over her life time, a woman can encounter a broad variety of benign breast conditions. These include normal changes that occur during the menstrual cycle as well as several types of benign breast disorders. What they have in common is that they are not cancers. Even among breast lumps that warrant a biopsy, some 80 percent prove to be benign.

Benign breast disease is a common disorder. It is at least 10 times more common than breast cancer¹, compared with cancer of breast, the impact of benign diseases of the breast is of trivial significance for the patient affected by them. However, since they cause similar, if not identical, symptoms these conditions are important. On the average, for every single breast cancer referred newly for a surgical opinion 19 additional patients are seen with symptoms and signs which prove to be due to benign conditions². Up to 30 percent of women will suffer from a benign breast disorder requiring treatment at sometime in their lives³. During the past decade there has been increasing interest in benign breast disease for a number of reasons. Firstly, patients demand investigations and treatment for symptoms of benign breast disease. Secondly, there is the question of premalignant disorders and histological features which may imply an increased risk of breast cancer. Finally, the underlying cause of complaints about the breast proves to be

benign in the overwhelming majority of cases⁴. Breast symptoms; induce such a great anxiety in the patients that malignancy need to be excluded as speedily as possible².

Benign breast disorders encompass a wide spectrum of clinicopathological features ranging from near normality to severe diseases. The breast may be regarded as physiologically dynamic structure in which cyclical variations are superimposed on changes of development and involution through out the woman's life. These physiological changes may themselves be so extensive that they may fall outside what is regarded as the normal spectrum. The histological features of an individual abnormality must therefore be evaluated within the context of a wide range of normality.

It has therefore been suggested that the broad concept of benign breast disease should be reconsidered. Many so called disease of the breast might now be regarded more accurately as disorders that are based on aberration of normal development and involution. A comprehensive classification, which puts all such processes of aberration of normal development and involution into a single framework is the 'ANDI classification' This classification allows histological entities, such as cysts and fibroadenomas, to be considered as aberration of normal physiology and not 'disease' which allows a much lower risk and anxiety to be attached to the term benign breast disease. Hence

benign breast disorders classified in, 'ANDI classification' are included in this study.

In the past it was difficult to assign an accurate cancer risk to many of the histological subgroups. It has produced a detailed classification of proliferative lesions of the breast, which led to the American College of Pathologists Consensus Statement, assigning a relative risk assessment to these histological categories. Which demonstrate a 1-2fold increased cancer risk in patients with proliferative disease with no atypia and a 4-5 fold increased risk in those with atypical hyperplasia¹. The coexistence of a positive family history with atypia on biopsy increased the risk to nearly nine times the general population⁵.

It is of fundamental importance to the clinician to have accurate information available to counsel patients with benign breast disease and determine whether regular follow up is required. Careful clinical evaluation and sympathetic reassurance are the cornerstones of management for the majority of women. When symptoms remain problematic, then therapeutic intervention is indicated. However, a structured treatment plan, with objective assessment of treatment end point, will provide relief of symptoms in the majority of patients.

MATERIALS AND METHODS

This prospective study was carried out on female patients presenting with signs and symptoms of benign breast disease in surgical outpatient department and surgical wards of DHQ Hospital DG Khan Medical college DG Khan in a period of 12 months from June 2011 to May 2012. A total of 100 patients were included in the study.

RESULTS

During the 12 month study period, a total of 161 patients with suspected benign breast disease were evaluated and out of them 100 patients were included in study. As regards menopausal status, 93 (93%) were pre-menopausal and 7 ((7%) patients were post-menopausal. Out of 100 patients, 69 (69%) were married and 31 (31%) women were unmarried. The age of the patients was 15-50 years. Incidence of Fibroadenoma was 62% and Mastalgia was found in 27 patients (cyclical 15 (55.5%) and non-cyclical 12 (44.5%). While the incidence of other less common benign breast diseases cyclical nodularity, Duct ectasia and intraductal papilloma was 04%, 05 and 02% respectively

Table No.1: Patients presenting with lump:Incidence of solid/cystic, benign/malignant (n=124)

Physical character	% age of Patients	Histopathology	
		% of BBD	% of CA
Solid	90.3	90.2	9.8
Systic	09.7	09.7	0%

Table No.2: Nature of mastalgia (n=27)

Nature of mastalgia	No. of Patients	%age
Cyclical	15	55.5%
Non-cyclical	12	44.5%

Table No.3: Fine needle aspiration biopsy of breast lumps (n=35)

Results	No. of Patents	%age
Benign	24.0	68.6
Equivocal	04.0	11.4
Malignant	07.0	20.0

Table No.4: Incidence of individual benign breast disease among 'ANDI' (n=100)

Disease	No. of Patients	%age
Fibroadenoma	62	62.0
Cyclical mastalgia	15	15.0
Non_Cyclical mastalgia	12	12.0
Cyclical nodularity	04	04.0
Duct ectasia	05	05.0
Intraductal papilloma	02	02.0

DISCUSSION

Benign breast disease is a common disorder. It is at least 10 times more common than breast cancer⁶. Recent media publicity and growing breast awareness have increased referrals to hospital for breast symptoms and currently benign to malignant ratio of 10:1 is being seen.

Fibroadenoma is benign breast growth, which usually occur in young women. They are very common cause of breast masses and most fibroadenomas present in girls aged 16-24 years⁴. The overall mean age at presentation is near 30 years. In this study the mean age at presentation proved to be 32 years (rang 15-49 years), which is slightly more than the above reported mean age, it is perhaps because of our social set up and shyness due to religious background, so the patients in early age group are hesitant to consult for their breast symptoms or problems.

Fibroadenoma accounts for 15% of all palpable breast masses in women 30-40 years of age. Though the exact prevalence of fibroadenoma is unknown, an autopsy series of 225 women showed that 80% of women under 40 years of age had nonpalpable fibroadenomas⁷. In our study the incidence proved to be 38.5% (62 patients) in palpable breast lumps with the suspicion of benign lumps, that is comparable to international literature reporting 36%⁸. The relative increased incidence could be because of study based in smaller number of patients in a limited geographical area, of Southern Punjab.

As the natural history of the fibroadenoma varies, they may grow, regress or remain unchanged. Daagensen⁹, observed most fibroadenomas stop growing when they reach 2-3cm in size. Because fibroadenomas are benign

lesions, one may argue that their removal is not indicated, a diagnosis based on clinical diagnosis alone, however, is not absolute. Given that the clinical diagnosis of a fibroadenoma at biopsy is inaccurate 27-50% of the times^{10,11}. In our study it proved to be inaccurate in 45 (28%) of the times. The safest clinical course is to obtain a tissue diagnosis, so excisional biopsy remains the procedure of choice in women above the age of 25 years.

The conservative management of fibroadenomas that are clinically and cytologically benign has been shown to be safe and acceptable to patients: hence some of our patients under the age of 25 years were given the option of conservative management. Majority 60(96.7%) refused to accept this option, but only 2(3.3%) with cytologically proved benign lesions. Both of them were followed up for 6 months, and a slight increase in the size of the lump was noticed and ultimately both were subjected to excision on their wish and were histopathologically proved to have fibroadenomas. So all of our patients were treated by excision of the lumps as they did not accept the offer of conservative management, the cause of nonacceptance was a fear of malignancy which wane of after excision and histopathological examination

1(1.6%) of our patient had multiple fibroadenomas, two in number in the same (upper outer) quadrant of the ipsilateral breast though the incidence of multiple fibroadenomas reported in international literature is 10-15%^{9,10}.

None of the histopathological report of our patients showed any associated carcinoma, though 160 cases of fibroadenoma have been known to be associated with carcinomas^{12,13}.

Recurrence of fibroadenoma was not observed in any single patient in our study, though it is not uncommon⁴, and any may be due to metachronous fibroadenoma, incomplete removal or missed at operation and finally it may be the mode of presentation of a previously undiagnosed phyllodes tumor.

Regarding fibroadenoma and subsequent risk of breast cancer, our study period of 12 months was insufficient to observe this aspect of the disease. Though in two early studies, only 1 patient in 317 subsequently developed cancer^{14,15}. Of interest is report by Dupont and coworkers which describes certain histologic and cytologic patterns of fibroadenoma defined as fibroadenomas with cysts, sclerosing adenosis, epithelial calcification, or papillary changes had an increased relative risk of 3.1. We did not enjoy the provision of having a histopathological report mentioning these variants of fibroadenoma in our study. Mastalgia: Pain is the most common reason for referral to a breast clinic and accounts for upto 50% of patients seen, and of all cases presenting with breast pain 40% have cyclical mastalgia⁴. Cyclical mastalgia accounts for two-thirds of cases¹. The traditional surgical view,

that pain in the breast was largely an expression of psychoneurosis, was dismissed in other studies. They showed clearly that the majority of women with mastalgia are psychologically stable, suggesting that in most cases, aberrant physiological or pathological processes underlie the symptoms rather than neuroticism. Patients in our study were also asked for having any psychological problem but no one admitted to document that.

The incidence of breast pain in our study is 27 (16.7%). 15 (9.3%) patients proved to have cyclical mastalgia and 12 (7.4%) had non cyclical mastalgia. As mastalgia remains a poorly characterized, under reported symptom, but it is among the most frequent reasons for breast consultation in general practice¹⁶. When questioned, nearly 66% of women reported breast pain, 21% of which is severe¹⁷. The incidence in our study is significantly low, which could be for the reason that women in our society are quite shy and reluctant to consult doctor for such a secret and trivial symptom. But the incidence of consultation for this symptom is among the increase in relatively higher socioeconomic, literate elite class, because of increasing awareness of breast cancer and the possibility that mastalgia may indicate the cancer, hence the majority 20 (74%) patients presenting with breast pain in our study were from a higher socioeconomic, well of and educated family background.

Cyclical mastalgia was bilateral in 14 (93.4%) patients and unilateral in 1(6.6%) patient in our study which is comparable to international literature mentioning that cyclical pain which is usually bilateral, although it may be unilateral, varies during the menstrual cycle and relieved by the onset of menopause¹. Regarding the intensity of pain, it was severe in 4 (27%) patients, severe enough to significantly interfere with the patient's every day activities, though reportedly incidence of such a severity is 21% which is relatively lower than our study, no known reason could be accorded to this observation.

Mean age of patients presenting with cyclical mastalgia in our study is 26 year, while the mean age recorded in international literature is 35 years, these are comparable with a relatively younger age group in our study, could be a racial and geographical variation in our subtropical region due to early menarche and early marriages with active reproductive life. The result of our study in this regard is comparable with international literature, that is, more than 80% of women require no treatment other than simple reassurance⁴.

The Result of our study show that patients suffering from benign breast disease, especially among 'ANDI classification' are young women below the age of 30 years, with few exceptions found in relatively older age group. In this regard the results of our study are similar to those reported in other population where the peak age incidence of benign breast diseases was 20-29 years¹⁸.

CONCLUSION

In the modern era of advanced technology, most sophisticated procedures of diagnosing and treating the breast disease, like mammoscintigraphy and MRI is lacking in our institution. Provision will definitely benefit the patients and will provide an opportunity to surgeons to take appropriate decisions regarding the management of breast diseases.

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