ORIGINAL ARTICLE

# Evaluation of Benign Breast Lump

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**Abstract:**

**Objective: The objective of this study was to evaluate the frequency of benign breast disease in relation to age,parity and socio-economic status and analyse the current trends in management of benign breast disease.**

**Materials and methods: This prospective study of 100 females who presented with a breast lump , to the out patients department(OPD) of general surgical unit of Agency Headquater Hospital (AHQ) Landikotal Khyber Agency over a period from 1st Jan 2008 to 31 Dec-2008. All patients underwent open breast biospy under anesthesia through a skincrease incision . 94 cases operated under general anesthesia(GA) & 6 under local anesthesia(LA).All patients were admitted in the ward and Biopsy sent for histopathology.**

**Results: All 100 patients underwent open breast biopsy either excisonal or incisonal.All small lumps excised in toto and from large breast lump incisonal biopsy was taken under anesthesia. Among these 100 patients, 49% patients have Firbroadenoma,18% fibrocystic disease, 15% breast abscess.**

**Conclusion: From our study we concluded that open breast biopsy is the best in terms of diagnoses and can be diagnostic and therapeutic as well.**

**Keywords: Breast Lump, Benign Breast Disease, Fibroadenoma, Fibrocystic Disease, Breast Abscess**

## Introduction:

Benign Breast lump is 10 times more common than breast cancer[1]. It can affect any age group but more common in younger age group. Upto 30% of the women will suffer from benign breast disease, require treatment at some times in their lives[2]. Two main conditons are responsible for discrete benign breast lumps, fibroadenoma in young women and cyst in peri & post menopausal women. Most of the lesions described as a “lump” by patient and general practioner turn out to be nodularity rather than discrete lumps.In majority of cases the diagnosis is straightfoward but still some cases are difficult to judge clinically. Management includes history to discover current hormone treatment,trauma ( fat necrosis ),any previous breast problem,recurrent cyst. Breast ultrasonography for younger women under 35 years of age. Mamogram(MMG) for women more than 35 years. Any discrete mass requires mandatory cytological or histological diagnosis , which can be either FNAC or Biopsy. In younger women confirmation of fibroadenoma allows the patient to keep her lump if she so desires,as many of these will stay unchanged or disappear on followup[3]. So adequately treated fibroadenoma (FA) can safely be treated conservatively. A clinical diagnosis of fibroadenoma alone without cytological or histological confirmation is not sufficient to be sure that malignancy has been excluded. When cysts are present, aspiration is curative as well as diagnostic and provide the fluid is not blood stained and lump disappear on aspiration , then no further action is indicated.Simple Breast cysts do not required follow up except those cysts with risk factors such as atypical hyperplasia[4].

## Patients and methods:

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This prospective rendomized study was conducted in surgical unit of AQH hospital Landikotal Khyber Agency. The duration of study was one year i-e from 1st Jan 2008 to 31 Dec 2008.Total 100 females patients were selected from those patients who came to surgical OPD with a breast lump with or without mastalgia or nipple discharge irrespective of their age. All these lumps after being confirmed to be benign on histopathological examination. All those female patients having malignant breast disease after histology report were excluded. All these cases were admitted through OPD. After admitting patients in the ward, detailed history,clinical examination and investigations were performed. All these patients underwent open breast biopsy either excisional or incisional under anesthesia (general or local), through a skin crease incision over the mass. The tissue for histopathology was sent to laboratory and results were compiled. All small lumps excised in toto, while from large lumps incisonal biopsy was taken. Wound closed primarily and redivac suction drain was placed in some cases to prevent hematoma. Oral antibiotic (cefuroxime) 12 hourly for 3-5 days and analgesic(diclofenac sodium) 8 hourly on first day and then as required given to the patient. Postoperatively all patients were kept in ward for 24 hours and then were discharged and advised to come to OPD with histopathology report within 2 weeks time.

**Results:**

A total of 100 patients with single or multiple breast lumps were examined. All underwent open Breast biopsy before a definitive diagnosis was made.94% cases operated under GA and 6 cases under LA because they were either pregnant or otherwise not fit for GA. All were female patients and majority of them were between 21-30 years (Table 1).

Majority of patients had menarche at 13 years of age. 73%patients were married and 27% were unmarried. Among married patients 12 (16.43%) were nulliparous while 61 parous, amongst whom 30 (41.09%) patient has 1-3 kids. Among the porous women, most of them has first child (delivery) at the age of 15-20 years.Only 45% of patients had been breast feedings. Majority (71) patients had no history of using contraceptive pills and only 29 cases had a history of using contraceptive. Past history of benign breast disease was significant in 21 cases. Family history of benign breast disease (BBD) was positive in 27% cases. Among the patients with benign breast disease, majority had fibro adenoma i-e 49 patients (49%)followed by fibrocystic disease (18%), 15 patients (15%) had breast abscess and 7 patients (7%) had sclerosing adenosis (Table 2). Postoperative complication was found in 8 patients. Postoperative bleeding from wound in two cases(2%),wound infection in two cases(2%), wound hematoma was found in 2 cases (2%).one(1%) patient has developed wound sepsis, mammilary fistula also noted in one ( 1%) patient.

Table 1: *Age distribution of patients with benign breast lump (n =100)*

| Age of the patient in years | No. of Benign Cases | Percentage |
|---|---|---|
| 11-20 | 11 | 11 |
| 21-30 | 29 | 29 |
| 31-40 | 21 | 21 |
| 41-50 | 16 | 16 |
| 41-60 | 14 | 14 |

Table 2: *Pathology of benign breast lump (n =100)*

| Pathology | No. of patients | Percentage |
|---|---|---|
| Fibro adenoma | 49 | 49 % |
| Fibrocystic disease | 18 | 18 % |
| Breast abscess | 15 | 15 % |
| Sclerosing adenosis | 7 | 7 % |
| Duct ectasia | 4 | 4 % |
| Tuberculosis | 3 | 3 % |
| Galactocele | 2 | 2 % |
| Duct adenoma | 1 | 1 % |

**Discussion:**

The presence of breast lump strikes most of the educated and enlightened woman with apprehension, uncertainity, fear and sometime depression. Fortunately all breast lumps are not malignant; in fact the majority is not. However not one surgeon can stick his head out to affirm with certainty that, clinically a breast lump is benign even if the age of the patient and feature of the lump do not support malignancy. The final arbiter is histologic tissue diagnosis which can be achieved

from tissue biopsy. The aims of our study were two folds. Firstly, to find out spectrum of disease in relation to age, parity & socioeconomic status. In this study benign breast disease was common in young age group & 32% cases were between 21-30 years of age. Same age group was shown by study of Noguchi-S et al[5]. Similar age group was also mentioned by national study of Zarina Khan[6]. In our study BBD was more common in married patients i-e 73 cases (73%) were married and 23 cases (23%) were unmarried and 30 out of 61 parous patients has 1-3 kids.

Benign breast disease was found to be more frequent in lactating and low socioeconomic status. In our study histopathology of the breast lumps showed fibro adenoma(FA) to be the most common breast lump 49% followed by fibrocystic disease (FCD) 18% , breast abscess 15%, which agrees with the fact that the most common breast lump in females under the age of 30 years is fibradenoma[7,8]. Several studies done in Nigeria, Saudi Arabia, Nepal, India have shown that the most common breast lump in female is the fibro adenoma followed by fibrocystic disease[9,10]. FA is the commonest BBD as shown in this study. The frequencies of above mentioned various types of BBD were also mentioned similarly by other studies[11,12,13,14]. They accounted FA and FCD 52% and 17% respectively. Most fibro adenoma grows to only about 3cm in diameter and many spontaneously regress[15]. The study actually suggests the safety of non operative management of cytologically confirmed fibroadenoma; these authors found that 38% of the fibro adenoma resolved over 5 years[16]. Fibrocystic disease is a disease of more mature female and in this study majority fell between the mean age range 31-50 years[17,18,19]. The mean age of patients with fibrocystic disease in this study was 39.5 and this is slightly higher when compared with the recent study in Ghana where this age was 31.8 years[17]. Fibrocystic disease is an important breast lesion because of its high frequency and the ability of some of its sub types to mimic the clinical and radio graphic appearance of carcinoma[20]. Hormones also play a role in its development but the exact pathogenesis still remains to be establish[21]. Atypical epithelial hyperplasia is the most important and troublesome component of fibrocystic disease because of its possible relationship with carcinoma[20,22]. It is advised that histological assessments of all breast lump should be routinely done to evaluate the risk factors for malignancy. In my study, out of 15 cases of Breast abscess, 9 were lactating and 6 non lactating. This fact was also shown by study of N.J.Bundred et al[23]. Duct ectasia was found mostly in non lactating breast. The increased incidence of breast abscess in our study related to poor hygienic condition combined with breast feeding in this part of the world. Mastalgia is the common breast symptom reported by patients attending the outpatient departments[4]. It was also the common associated symptom in our study and was 41%. 30% patients had no associated symptoms. In two studies 25,26 painless breast lumps was present in 51.09% and 21% cases with no associated symptom. In our study of BBD, it was found that the reproductive history of patient is important, BBD was found common in married patients with parity of 1-3. 81(81%) cases were premenopausal, 45 (45%) cases had a positive history of breast feeding. In study by Minami-y.et-al[27] showed that nulliparity and low parity is associated with increased risk of proliferative type of benign breast diseases which is not comparable with our study. The same study also showed that increased duration of lactation, premenopausal status and positive family history have increased risk of proliferative benign breast disease, as shown by our study of benign breast disease.

The second aim of our study was evaluation of management of benign breast lump. The only diagnostic tool after clinical examination was ultrasonography, mostly in younger age group (below 35 years age) and mammography in patients more than 35 years age. In this study 34 patients had breast ultrasonography only, out of those 3 patients had ultrasound finding suggestive of BBD and only 4 patients has equivocal findings. Ultrasonography was 100% accurate when the lesions was definitively called a cyst or fibro adenoma but only one of 4 equivocal lesions proved to be FA-while other studies on the use of ultrasonography to evaluate breast lesion suggests an inability to differentiate between benign from ma-

lignant solid lesions[28], a recent study by Sharen's[29] suggests that breast sonogram can reliably show a lesion to be malignant while overdiagnosing some fibro adenoma as cancers. As in both Sharen's study[29] and that of Brand et-al[30], the same was in our study. USG had high sensitivity and lower specificity. The MMG undertaken in patients of more than 35 years of age on only 22 patients, out of which 2 cases has equivocal findings. Monica et-al[31], carried out a study of 267 women with suspicious mamographic findings. They found that the use of additional mamographic view, interval follow up examination, steriotactic biopsy using FNAC avoided open surgical biopsy in a significant number of women. Use of additional triple test for the diagnosis of palpable breast lesions in younger women yield high diagnostic accuracy without the need for routine open biopsy resulting in an overall reduction in patient charges compared with the criteria standard or a modification of standard using simple aspiration[32].

**Conclusion:**

In our study we conclude that Fibro adenoma is still the most common lesion in women under 30 years and it is advisable that histologic assessments of all breast lumps should be routinely done to evaluate the risk factors for malignancy. We recommend that high risk patients with a strong family history should be referred early. From our work we conclude that the open breast biopsy is best in terms of diagnosis and can be diagnostic and therapeutic as well.

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