

Changing Pattern of Benign Breast Lumps in Young Females

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Abstract: Breast cancer is most common in females affecting nearly one out of nine women sometimes in their life. The main objective of this hospital based study was to find out the pattern of benign breast lumps in young Sindhi females. Out of the total 800 females who attended the surgical out-patient departments of Liaquat university medical and health sciences between March 2004- February 2006, 500 young females aged between 15-25 year were diagnosed with breast lump/lumps(with or without pain) and these were included in the study. FNAC was carried out on every patient for correct histopathological diagnosis. Out of 500 patients, 294 (59 %) had benign breast lump/lumps. Among these included 66.3% with fibrocystic disease along with adenosis; 11.5% with fibroadenoma along with adenosis; 8.1% with solitary fibroadenoma; 6.12% with unilateral multiple fibroadenomas; 3.7% with bilateral fibroadenomas; 3.4% with recurrent fibroadenomas and 0.68% patients came with stromal lumps. The results of this study suggest that the pattern of benign breast lump is changing in young Sindhi females from fibroadenomas to adenosis and fibrocystic disease.

Key words: Breast cancer • fibroadenomas • adenosis • fibrocystic • Pakistan

INTRODUCTION

Benign lesions of breast are the most common lesions which accounts for 90% of the clinical presentation related to breast [1]. Of all breast disorders, palpable breast lump is second most common presentation, the pain being the first. [2]. The consequences of breast lump besides creating anxiety results into carcinoma and causes unbearable pain and deformity. [3,4]. Breast tissue in females is under the influence of various hormones and subjected to constant physiological variations throughout reproductive life and beyond [5, 6]. Fibroadenoma of the breast is a common cause of a benign breast lump in premenopausal women [7, 8]. Fibrocystic disease is a histological term that refers clinically to a large group of syndrome presented as lump or lumpiness [9]. Fibroadenoma accounts for the majority of breast biopsies performed today. The natural history of fibroadenoma varies, usually found as a solitary 1-2 cm, firm, rubbery, non tender and well circumscribed [10]. Evidence from clinical followup studies shows that there is a relationship between the presence of histopathologically proven benign breast disease and breast cancer risk and that the level of risk varies

according to the histological category of benign breast disease [11-14]. Significant genetic alteration can be seen in benign breast disease and supporting the clonal evolution from benign breast disease to malignancy [15-18]. When finding are suspicious clinically or radiologically patients get anxious about possibility of breast cancer [19, 20]. Clinicians must attempt to rule out malignancy [21, 22]. Reference to benign breast disease in particular to lumps in young age are scant in our local surgical literature. The main aim of this study is to profile the pattern of benign breast lumps amongst young females examined in our out patients department at LUMHS, Jamshoro. Our study is observational, prospective and noninterventonal.

MATERIALS AND METHODS

A total of 800 females with breast lump attended the surgical OPD clinics of Liaquat university over a period of 2 years from March 2004 to February 2006. Out of them 500 (62.5 %) young females of 15-25 years of age with breast lump (with or without pain) were included in the study. A thorough history was obtained and general physical and local examination was carried out on every

patient. Ultrasonography with high frequency prob was done in every patient. As all patients were less then 25 years of age so mammography was not performed in any patient but FNAC was performed in every patient to ascertain correct histopathological diagnosis. Fibroadenomas were kept for excisional biopsies and records of their operative findings along with histopathological reports were maintained. A profarma to collect data pertinent to study was filled for each patient. After collecting data results were analyzed. Patients with obvious inflammatory lumps with or without lactation were excluded from the study. As all patients were less then 25 years of age so we did not receive any patient with malignant lump in this age group during our study.

RESULTS

Out of the 500 young female patients of 15-25 years of age with breast lump,. 206(41.2%) had either inflammatory lump or galactocoel. The remaing 294 (58.8%) patients had non inflammatory or non pregnancy or lactational related lumps. The most common presentation was fibrocystic disease(including adenosis) which included 195 (66.3%). 34(11.5%) patients with fibroadenoma along with adenosis; 24(8.1%) patintns had solitary fibroadenoma; 18(6.12%) patients were unilateral multiple fibroadenomas; 11(3.7%) patients were diagnosed with bilateral either solitary or multiple fibroadenomas; 10(3.4%) patients came with recurrent i.e post surgical fibroadenomas on ipsilateral or contralateral breast and 2 (0.68%) patients were found to have stromal tumors after excision which on histopathology turned out as lipoma and lipoma with myxomatous changes. The Table 1 is

Table 1:

Types of Lump	Number of patients	Percentage%
Fibrocystic disease with fibroadenosis	195	66.3
Fibroadenoma with adenosis	34	11.5
Solitary fibroadenomas	24	8.10
Unilateral multiple fibroadenomas	18	6.12
Bilateral fibroadenomas	11	3.70
Recurrent fibroadenomas	10	3.40
Stromal lump	2	0.68
Total	294	100

Table 2:

Common factors	Number of patients	Percentage%
Marital status (Unmarried)	290	98.6
Poor socioeconomic class	288	97.9
Anxiety(stressful life)	260	88.4

shows types of lump found in our study. 210(71.42%) patients came with complain of pain but only 100 (34%) were having tenderness. Some common factors found in history of these young females are described in Table 2. 290 (98.6%) patients were unmarried. No particular common dietary pattern found in all patients. 260 (88.4%) patients were anxious and having stressful life due to social, financial and academic presures but it was not possible to find out weather anxiety has lead to lump formation or lump has caused anxiety. 288 (97.9%) patients were belonging to lower socioeconomic class. Total 110 (37%) patients underwent surgery. 97 (32.9%) patients were having histologically proven fibroadenoma with or without adenosis. 50 (45.45%) fibroadenomas were peroperatively very adherent and irregular in shape that's why excision was done instead of enucleation. 11 (10%) patients who were kept for excision as fibroadenomas were found to have fibroadenosis on excision as well as histopathologically.

DISCUSSION

Benign breast diseases are 10 times more common then breast cancer in west [23]. Reassurance following exclusion of cancer is the keystone of management for majority of cases [24]. Due to lack of education, the women disregard the lump. Fibroadenoma is the commonest benign breast lump in young females, the patients want removal because of social reason and fear of malignancy [25]. In our studies total 500 (62.5%) young females between the age of 15 to 25 visited our out patients department. 294 (58.8%) came with benign breast lump, which is quite less in number then study conducted by Adesunkanami AR *et al* in Nigeria where 87.2% patients came with benign breast lump [26]. Out of them 290 (98.6%) patients were unmarried which is same as in most studies benign breast lump is more common in unmarried females. No particular dietary pattern found in all patients which is similar to study conducted by Galvan Portillo *et al.*, in Maxican women and Kaiser *et al.* in American women [5, 6]. The commonest benign breast lump in our study was fibrocystic disease including fibroadenosis. The frequency of this lump in our study is 66.3% which is quite higher from others that is 36% Jamal *et al.* in Saudi-Arabia [27]. 25.5% by Chaudhry *et al.* in India [28], 29.2% by Thekwaba in Nigeria [29], but it is near to studies in Italy 43.2% by Ciatto [30], in USA 47% by Donegan *et al.* [31] and 42% in Nigeria by Adesunkanmi [26]. All these studies were not conducted in specific age group. Increase frequency of fibrocystic

disease in young females in our studies needs further research. 11.5% patients came to us with Fibroadenoma along with adenosis which is less than 23% by Shabtai in his study [32]. 8.1% patients came with solitary fibroadenomas. This number is quite low from most of the studies according to which fibroadenoma is the most common benign breast lump [33], as 46% by Hamed *et al.* in Pakistan [34], 47% by Mansoor and Jamal in Saudi Arabia [35, 27], 55% by Kwaba *et al.* in Nigeria [29], but it is nearly equal to studies by Uma Krishnaswamy 6.9% in India and by Khanna 17% in India [23, 36]. We found 6.1% patients with unilateral multiple fibroadenomas which is quite higher from Amshel *et al.* who has case reported a single adolescent female with cluster of fibroadenomas [10]. 3.7% patients came to us with bilateral fibroadenomas which is less in number as compared to study by Onuigbo *et al.* in Turk journal where bilateral cases were 10.9% [37]. We received 3.4% patients with recurrent fibroadenomas which is quite higher from Onuigbo who mentioned 7/530 cases with recurrent fibroadenomas [37]. Total 32.99% patients were having fibroadenomas which is still lower than most of the studies mentioned above [27, 29, 35] and most of those cases were having associated adenosis or they were either multiple or bilateral or recurrent and even those which were solitary they were irregular, less mobile and adherent preoperatively which is unusual from other studies. Only 0.68% patients came with stromal tumors which is similar to literatures which mention that stromal tumors of breast are not very common. From the result of our study we can say that pattern of benign breast lump in young females is changing from fibroadenoma towards the fibroadenosis and fibrocystic disease and fibroadenoma itself is getting from soft, smooth, regular and mobile towards firm to hard, irregular and adherent type. This changing pattern of presentation of benign breast lump in young females need further evaluation and research to find out the reasons which could be different environmental, social, nutritional or hormonal factors, as most of the girls were from lower socioeconomic class, anxious (having social, financial or academic stresses) and unmarried which all leads to altered hormonal status of body and can cause lump formation.

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