Changing Pattern of Benign Breast Lumps in Young Females


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Abstract: Breast cancer is a cancer of the breast tissue. Worldwide, it is the most common form of cancer in females—affecting, at some time in their lives, approximately one out of nine. Benign lesions of the breast are the most common lesions which accounts for 90% of the clinical presentation related to breast. The main aim of this study is to profile the pattern of benign breast lumps amongst young females examined in our outpatients department at LUMHS, Jamshoro at the University Hospital which is one of the main hospitals in the province Sindh.

Key words: Benign breast lump • young females

INTRODUCTION

Of all breast disorders, palpable breast lump is second most common presentation, the pain being the first [1, 2]. Dietary influences have been proposed and examined, but these are small effects and do not distinguish differences in risk within populations, as well as they do between populations. A significant environmental effect was revealed by the large difference in breast cancer incidence between countries and continents and a migration effect which slowly increases the risk of breast cancer even across generations after migration from a country of lower incidence to a country of higher incidence, such as moving from China or Japan to the United States. The risk of getting breast cancer increases with age. For someone who lives to the age of 90, the chances of getting breast cancer is about 14.3% or one in seven during their lifetime [3]. The consequences of breast lump besides cresting anxiety results into carcinoma and causes unbearable pain and deformity [1, 4]. The probability of breast cancer rises with age but breast cancer tends to be more aggressive when it occurs in younger people. One type of breast cancer that is especially aggressive and disproportionately occurs in younger people is inflammatory breast cancer. It is initially staged as Stage IIIb or Stage IV. It also is unique because it often does not present with a lump so that it often is not detected by mammography or ultrasound. It presents with the signs and symptoms of a breast infection like mastitis. 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 account 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. To assess the pattern of benign breast lumps amongst young females, this study is conducted in our outpatients department at LUMHS, Jamshoro. The study is observational, prospective and noninterventional.

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MATERIALS AND METHOD

All females of 15-25 years of age with breast lump attending the out patients clinics with breast lumps with or without pain over a period of 2 years from March 2004 to February 2006 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 than 25 years of age so mammography was not performed in any patient. FNAC was performed in every patient to get a documented proof of histopathological diagnosis for confirming clinical assessment. Fibroadenomas were kept for excisional biopsies and records of their operative findings along with histopathological reports were maintained. A proforma to collect data pertinent to study was filled for each patient. After collection data results were analyzed. Patients with obvious inflammatory lumps with or without lactation were excluded from the study. As all patients were less than 25 years of age so we did not receive any patient with malignant lump in this age group during our study.

RESULT

Total 800 female patients visited our OPD with breast lump during our study period from March 2004 to February 2006. Out of them 500 (62.5%) were young females of 15-25 years of age. 206 (41.2%) patients of this age range were having either inflammatory lump or galactocoel. Total 294 (58.8%) patients came with non inflammatory or non pregnancy or lactational related lumps. The most common presentation was fibrocystic disease (including adenosis) that is 195 (66.3%). 36 (11.5%) patients came with fibroadenoma along with adenosis. 24 (8.1%) patients were having solitary fibroadenoma. 18 (6.12%) patients with unilateral multiple fibroadenomas. 11 (3.7%) patients came with bilateral either solitary or multiple fibroadenomas. 10 (3.4%) patients came with recurrent i.e post surgical fibroadenomas on ipsilateral or contralateral breast. 2 (0.68%) patients were found to have stromal tumors after excision which on histopathology came out as lipoma and lipoma with myxomatous changes. Table 1 is showing 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 (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 pressures 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 preoperatively 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

All women are at risk for breast cancer, regardless of hereditary factors. In fact, 85 to 90 percent of breast cancer incidences cannot be explained by inherited genetic predisposition. Other known risk factors and personal characteristics include personal or family history of breast cancer, high breast tissue density, earlier onset of menstruation (12 years or younger), later menopause (55 years or older), late first-term pregnancy (30 years or older), no children or no breast-feeding, early or recent use of oral contraceptives, more than four years use of hormone replacement therapy, postmenopausal obesity, alcohol consumption, exposures to secondhand cigarette smoke and exposure to ionizing radiation [23]. Benign breast disease are 10 times more common then breast cancer in west [24]. Reassurance following exclusion of
cancer is the keystone of management for majority of cases [25]. 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 [26]. 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 [20]. 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 M et al. in Maxican women and Kaiser R 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 WL 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 then 23% by Shabtai. M in his study [32]. 81.1% 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 Hammed et al. in Pakistan [34], 47% by Mansoor and Jamal in Saudi Arabia [27, 35], 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 case were 10.9% [37]. We received 3.4% patients with recurrent fibroadenomas which quite higher from Onuigbo who mentioned 7/530 cases with recurrent fibroadenomas [37]. Total 32.99% patients were having fibroadenomas which is still lower then 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 form other studies. This unusual pattern of presentation of fibroadenomas along with decrease frequency in young females in our study needs further evaluation and research. Only 0.68% patients came with stromal tumors which is similar to literatures which mention that stromal tumors of breast are not very common. This changing pattern of presentation of benign breast lump in young females from fibroadenomas towards fibroadenosis and fibrocystic disease in our young females might be having nutritional, enviornmental or hormonal factors, as most of the girls were from lower socioeconomic class, anxious (and having social, financial or academic stress) and unmarried which all leads to altered hormonal status of body and can cause lump formation. This needs further studies to find out hormonal profile of these females.

CONCLUSION

It is concluded that the pattern of presentation 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. These changes need further evaluation and research to find out the reasons behind it, which could be different enviornmental, social, nutritional or hormonal factors.

REFERENCE


