Evaluation of breast lesions in young females

Dr. Umesh Mahadev Avarade and Dr. Nayana

DOI: https://doi.org/10.33545/surgery.2020.v4.i1b.313

Abstract

Introduction: There has been a progressive increase in young women presenting with breast lumps. Benign breast conditions causing lumps or tumors are quite common in young women. Among those, incidence of fibroadenoma is highest in young women. Study aimed to analyse incidence and type of benign breast lumps in young females.

Material and Methods: This was a retrospective record based study conducted in the Department of General Surgery Belagavi Institute of Medical Science, Belagavi from January 2017 to December 2017. Patients were examined clinically and ultrasonography, FNAC were done. Patients fit for surgery were admitted in surgery ward and operated. Specimen were sent for histopathological studies and postoperatively patients were assessed for wound infection seroma formation and recurrence.

Results: Fibroadenoma were seen in more number followed by fibroadenosis. Fibroadenomas were commonly of 2-2.9 cm size. Patients were investigated with FNAC and ultrasonography, most of the lumps were benign which usually does not need any surgical treatment only proper education and counseling needed.

Conclusion: Fibroadenomas are benign disease of the breast. Mainly seen in young females of age 16-40 years. Breast lumps are of different sizes and are usually spherical in shape. They are more commonly seen on left side in upper and outer quadrant. Triple examination is important in breast lump cases i.e. clinical examination, ultrasonography and FNAC. Though conservative management or observation can be followed in young girl or excision biopsy can be done.

Keywords: HIV, ART, surgical disease

Introduction

Benign breast diseases includes all nonmalignant conditions of the breast and typically do not convey an increased risk of malignancy. Patients with benign breast conditions are often first seen by their primary care physician or their gynecologist. Benign breast diseases are often misdiagnosed and misunderstood because of their variety in presentation and anxiety about the possibility of malignancy. Surgeons who interface with patients with benign breast disease must have a complete understanding of the breast conditions to competently evaluate these disorders and calm concerns regarding the possibility of breast cancer. The care of women who have concerns about their breast health or breast abnormalities is a complex process that is best addressed by an interdisciplinary, collaborative model of care. Practitioners with specialized training are well qualified to assess, diagnose, and manage all aspects of benign breast diseases, including breast cysts, masses, nipple discharge, mastitis, abscess, breast pain, and abnormal mammograms. Evaluation of breast problems in women is a well-known problem. Many of the patients present with mastalgia, nodularity or asymmetry, but a small proportion may indeed present with a lump. A palpable mass in a woman’s breast represents a potentially serious lesion and requires evaluation by history taking, physical examination and mammography

Proper clinical examination of the lump in the breast, ultrasonography of the lump and tissue diagnosis by FNAC are the important component for breast lump evaluation. Fine needle aspiration (FNAC) is simple, fast, inexpensive, and accurate, and it can also very easily differentiate solid and cystic masses. Mammography screens for occult malignancy in the same and contra lateral breast and can detect malignant lesions in older women; it is less sensitive in women younger than 40 years.
Ultrasoundography is important in evaluation of the breast lump which can help in knowing site size, shape, nature of the swelling cystic or solid in nature [4]. Ultrasoundography guided FNAC is very useful when swelling are not clinically palpable. Objectives of the study were to analyse incidence and type of benign breast lumps in young females.

Material and Methods
This was a retrospective record based time bound study of 60 patients admitted in the surgical ward in Belgavi Institute of Medical Sciences, Belgavi with history of breast lumps between January 2019 to December 2019 Breast Lesions in Young Females

Inclusion criteria: Patient with history of breast lumps

Exclusion criteria: Age Less Than 20 Years and More Than 40 Years
Abscess/Mastitis/Malignancy
Patients not willing for FNAC
Patients not fit for surgery

Patients were admitted in the surgery ward. Proper history was taken and patients were examined clinically for site, size, shape, surface of the lump, fixity to underlying structures and skin. Breasts proper and axilla were examined for any other swellings. Routine Blood investigation, ultrasonography of the breast and FNAC were done. Patients who were fit for surgery were taken for surgery and specimen were sent for histopathological examination. Sutures removed 7th post operative day. Post operatively wound infection seroma formation and recurrence rate was assessed. Histopathological reports were analysed for type of swelling

Statistical Analysis
Statistical analysis was done using Descriptive statistics like mean and percentages.

Result
Fibroadenoma (table-1) were seen in more number followed by fibroadenosis. More no of cases were seen in the age group of 21-30 (table no 2), with left side Predominance (table no 3). Fibroadenomas were commonly of 2-2.9 cm size (table no 4). Patients were investigated with FNAC and ultrasonography, most of the lumps were benign which usually does not need any surgical treatment only proper education and counselling needed. According to FNAC report fibroadenoma 50, fibroadenosis 35, cyst 5, malignancy 4, virginal hypertrophy of breast 1cases were seen. Post operatively seroma seen 5 patients, wound infection 2, chronic pain 2 and recurrence was seen in one patient.

Table 1: Various breast lesions encountered and their number diagnosis

| Type                        | No  | %  |
|-----------------------------|-----|----|
| Fibroadenoma                | 60  | 60 |
| Phyllodes tumor             | 2   | 2  |
| Giant juvenile fibroadenoma | 8   | 8  |
| Fibroadenosis               | 20  | 20 |
| Cyst                        | 5   | 5  |
| Fat necrosis                | 1   | 1  |
| Carcinoma                   | 4   | 4  |
| Total                       | 100 |    |
| Fibro adenoma is more common|     |    |

Table 2: age wise distribution

| Age     | No  | %  |
|---------|-----|----|
| 21-30   | 65  | 65 |
| 31-40   | 45  | 45 |
| Total   | 100 |    |

More common in 21-30 years

Table 3: Distribution based on site

| Site            | No of Cases | %  |
|-----------------|-------------|----|
| Left Breast     | 55          | 55 |
| Right Breast    | 35          | 35 |
| Bilateral       | 10          | 10 |
| Total           | 100         |    |

More common in 21-30 years

Table 4: Based on the Size

| Size (cm)        | No. of Cases |
|------------------|--------------|
| 1 cm to 1.9 cm   | 30           |
| 2 cm to 2.9 cm   | 42           |
| 3 cm to 3.9 cm   | 15           |
| 4 cm to 4.9 cm   | 10           |
| More than 5 cm   | 3            |
| Total            | 100          |

More in the size group 2-2.9 cm

Discussion
Breast lumps are commonest presenting complaints in young females now days. Lumps in the breast have different etiologies. They could be either benign or malignant. Main concern for the patients with lumps in the breast is fear of malignancy. Breast tissue in females is under the constant hormonal influence and it is subjected to constant physiological variations throughout a woman’s life more so in adolescence, reproductive life and less beyond the reproductive age group too. Fibroadenoma is most common benign and invasive ductal carcinoma of the breast is malignant condition of the breast [5]. Benign conditions are most commonly seen in second to fourth decades of the life where as malignancy are more common during fourth decades and on. Most of the patient patients presents to hospital with history of lump in the breast, discharge from breast. Proper history taking followed by clinical examination of the breast axilla is very important followed by ultrasonography and FNAC.

Fibroadenomas present as firm, mobile lump, painless, easily palpable breast lumps. They occur in any part of the breast tissue but are common in left side, upper and outer quadrant. They are more common before the age of 30 years. Cause for fibroadenomas are still unknow but hormonal influence plays major role. Giant breast lumps are rapidly growing and often misleading the clinician in terms of malignancy if occurring in middle aged females, giant fibroadenomas are breast masses with diameters exceeding 5 cm and/or weights of more than 500 grams [6, 7]. A wide variant of breast lesions such as phyllodes tumor, virginal hypertrophy, lipoma, hamartoma, cyst, abscess and carcinoma can result or co-exist in solitary or multiple giant masses. These fibroadenomas are well-encapsulated, well circumscribed and has characteristic intracanalicular or peri-canallicular histological features, with a variable growth pattern of epithelial and connective tissue elements. In general, these giant fibroadenomas and fibroadenomas are almost always benign and the potential to grow decreases with age. Simple enucleation or excision biopsy of the tumor is all that is required to control the disease [6, 8, 9].

- 79 -
Fibrocystic disease can occur in one or both breasts. These changes are common in women during the reproductive years, and are considered as normal aberration of breast. Many Karpoor, et al. Breast Lesions in Young Females patients presents with unilateral or bilateral breast lump with mastalgia during menstrual period or serous discharge. Size of the lump increases during menstruation. Lump should be investigated with USG followed by FNAC [10-14]. Cysts are fluid-filled spaces which are cystic in consistency. These can sometimes be tender, especially just before your menstrual period. Cysts may be drained or aspirated [12]. If the fluid removed is clear or greenish, and the lump disappears completely after it is drained, no further treatment is needed. If the fluid is bloody, then it should be sent for histopathological study to rule out malignancy. If lump reappears again following aspiration and drainage it should be excised and sent for histopathological study.

**Conclusion**

Fibroadenomas are benign disease of the breast. Mainly seen in young females of age 16-40yrs. Breast lumps are of different sizes and are usually spherical in shape. They are more commonly seen on left side in upper and outer quadrant. Triple examination is important in breast lump cases ie clinical examination, ultrasonography and FNAC. Though conservative management or observation can be followed in young girl or excision biopsy can be done.

**References**

1. Dontje KJ, Sparks BT, Given BA. Establishing a collaborative practice in a comprehensive breast clinic. Clin Nurse Spec. 1996; 10(2):95-101.
2. Garviclan L, Grimsey E, Littlejohns P et al. Satisfaction with clinical nurse specialists in a breast care clinic: questionnaire survey. BMJ. 1998; 316(7136):976-7.
3. Trop I, Dugas A, David J et al. Breast abscesses: evidence-based algorithms for diagnosis, management, and follow-up. Radiographics. 2011; 31(6):1683-99.
4. Ferrara A. Benign breast disease. Radiol Technol 2011; 82(5):447M-62M.
5. Gollapalli V, Liao J, Dudakovic A et al. Risk factors for development and recurrence of primary breast abscesses. J Am Coll Surg 2010; 211(1):41-8.
6. Karstrup S, Solvig J, Nolsoe CP et al. Acute puerperal breast abscesses: US guided drainage. Radiology 1993; 188(3):807-9.
7. Salemis NS, Merkouri S, Kimpouri K. Mondor’s disease of the breast: A retrospective review. Breast Dis 2011; 33(3):103-7.
8. Paniagua CT, Negron ZD. Mondor’s disease: a case study. J Am Acad Nurse Pract. 2010; 22(6):312-5. 9.
9. Wratten CR, O’brien PC, Hamilton CS et al. Breast edema in patients undergoing breast-conserving treatment for breast cancer: assessment via high frequency ultrasound. Breast J. 2007; 13(3):266-73.
10. Schoonjans JM, Brem RF. Fourteen-gauge ultrasonographically guided large-core needle biopsy of breast masses. J Ultrasound Med. 2001; 20(5):967-972.
11. Raganoonan C, Fairbain JK, Williams S, Hughes LE. Giant breast tumors of adolescence. Aust NZ J Surg. 1987; 57(6):243-247.
12. Musio F, Mozingo D, Otchy DP. Multiple giant fibroadenoma. Am Surg. 1991; 57(2):438-441. 8. Carl D, Patel V; Surgical problems in the management of the breast. Am J Obstet Gynecol. 1985; 152(3):1010-1015.
13. Hart J, Layfield LJ, Trumbull WE, Brayton D, Barker WF, Giuliano AE. Practical aspects in the diagnosis and management of cysto sarcoma phyllodes. Archives of Surgery. 1988; 123(9):1079-1083.
14. Vijaykumar A, Ajitha MB, Shivaswamy BS, Srinivasan N. A Systematic Study on Fibroadenoma of the Breast. Eur J Surg Sci. 2012; 3(3):80-85.