



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

*International Journal of Recent Scientific Research*  
Vol. 6, Issue, 7, pp.5117-5120, July, 2015

**International Journal  
of Recent Scientific  
Research**

## RESEARCH ARTICLE

# CLINICAL PROFILE OF FIBROADENOMA IN RURAL VIDHARBHA : A GEOGRAPHICAL ENTITY IN CENTRAL INDIA

**Bharati Pandya<sup>1\*</sup>, Swapnil murlidhar wahane<sup>2</sup> and Ravinder Narang<sup>3</sup>**

<sup>1</sup>Department of General Surgery, Mahatma Gandhi Institute of Medical Sciences, Sevagram, Wardha, Maharashtra

<sup>2</sup>DNB Rural Surgery (Registrar), Bhandara, Maharashtra

<sup>3</sup>Emeritus Professor, Department of General Surgery, Mahatma Gandhi Institute of Medical Sciences, Sevagram, Wardha, Maharashtra

### ARTICLE INFO

#### Article History:

Received 5<sup>th</sup>, June, 2015  
Received in revised form 12<sup>th</sup>,  
June, 2015  
Accepted 6<sup>th</sup>, July, 2015  
Published online 28<sup>th</sup>,  
July, 2015

#### Key words:

Fibroadenomas, Giant  
fibroadenosis, Multiple  
fibroadenomas, Rural Hospital.

### ABSTRACT

**Background:** Fibroadenoma (Adenofibroma) is a benign tumour, it is composed of both stromal and epithelial elements in the breast. Analysis of pattern and prevalence should provide a valuable guideline for clinicians in India for comparison with other countries.

**Aim:** The aim of the study is clinical profile of fibroadenoma in rural Vidharbha central India.

**Methods:** The present cross-sectional study was carried out in a rural medical college & hospital during the period 1<sup>st</sup> January 2013 to 30<sup>th</sup> June 2014 in 1236 cases with benign breast diseases. A detailed clinical history and physical examination was carried out in all the females (1236) with benign breast diseases and findings were recorded in a standard proforma.

**Results:** Among a total of 1236 with benign breast diseases, fibroadenoma was the most common lesion constituting 842 (68.12%) cases which included 837 (99.4%) fibroadenomas, 4 (0.5%) giant fibroadenomas and 1(0.1%) multiple fibroadenomas.

**Conclusion:** Fibroadenomas are the most common benign lesions of the breast. Conservative management or observation can be followed in young women.

**Copyright © Bharati Pandya et al.**, This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

### INTRODUCTION

Fibroadenoma (Adenofibroma) is a benign tumour and its benign nature was first noted by Sir Astley Cooper 1845<sup>1</sup>. It is composed of both stromal and epithelial elements in the breast. It is the most common tumour in women younger than 30 years of age<sup>2</sup>. In India, 90% of benign breast tumours are fibroadenomas<sup>3</sup>.

The natural history of fibroadenoma is well understood. A large proportion of fibroadenomas regress spontaneously. Some remain static, others shrink, while some of them grow<sup>4</sup>. About 40% of fibroadenomas reduce in size over a period of two years. Approximately 10% disappear each year. Most stop growing after they reach 2 to 3 cms. When fibroadenoma involutes in postmenopausal women, coarse calcification may develop. They may grow rapidly during pregnancy, hormone replacement therapy and immunosuppressive treatment. Fibroadenoma predominantly occur in second and third decade of life. Fibroadenoma is a discrete, smooth, mobile, nontender mass frequently situated in upper outer quadrant where most breast tissue lies. It is 1-2 cms in size when discovered first<sup>3</sup>. In

our country the average size of tumour is comparatively bigger than in western countries where the size of tumour is seldom more than 2.5 cm in diameter<sup>5</sup>.

Juvenile fibroadenoma refers to occasional large fibroadenomas that occurs in adolescents and young adults and are histologically more cellular, while Giant fibroadenoma is a fibroadenoma that attains an unusually large size, typically greater than 5 cms<sup>2</sup>. On this background the present study of clinical profile of fibroadenoma was carried out in a rural hospital.

### MATERIAL AND METHODS

The present cross-sectional study was carried out in a rural medical college & hospital during the period 1<sup>st</sup> January 2013 to 30<sup>th</sup> June 2014. Among a total of 1236 with benign breast diseases, fibroadenoma was the most common lesion constituting 842 (68.12%) cases. A detailed clinical history and physical examination was carried out in all the females 1236 with benign breast diseases and findings were recorded in a standard proforma. This included: General information;

\*Corresponding author: **Bharati Pandya**

Department of General Surgery, Mahatma Gandhi Institute of Medical Sciences, Sevagram, Wardha, Maharashtra

Presenting Complaints (Side of the involved breast; History of pain – Site, Character, Relationship with menstrual cycle; History of lump :- Number and site of lumps, Onset and progression; Association with pain and discharge; Premenstrual aggravation of lump. History of discharge:- Site, Type of discharge. Related complaints - Trauma, fever). Past history of benign breast disease and breast surgery if any. Recent / Past use of oral contraceptives, Marital status. Family history of breast diseases. Clinical diagnosis was recorded.

**Investigations** were carried out which included-

Baseline Investigations - Blood-Complete haemogram ,Urine – Albumin and sugar  
Cytological examination - Fine Needle Aspiration Cytology (FNAC) of breast lump.

Patients were operated wherever indicated, and the tissue material was sent for histopathology and reports were recorded.

**Statistical Analysis**

Data was analyzed using statistical software SPSS 17.0 version and Graph Pad Prism 5.0 version and p<0.05 is considered as level of significance(p<0.05).

**RESULTS**

The present cross-sectional study was carried out in a rural medical college & hospital during the period 1<sup>st</sup> January 2013 to 30<sup>th</sup> June 2014. Among a total of 1236 with benign breast diseases, fibroadenoma was the most common lesion constituting 842 (68.12%) cases which included 837 (99.4%) fibroadenomas, 4 (0.5%) giant fibroadenomas and 1(0.1%) multiple fibroadenomas.

**Table 1** Age Wise Distribution Of Fibroadenomas (N=842)

Age group (years)	Fibroadenomas	Giant Fibroadenomas	Multiple Fibroadenomas	Total
< 10	1	0	0	1(0.1%)
11-20	309	1	0	310(36.8%)
21-30	282	2	1	285(33.7%)
31-40	213	1	0	214(25.5%)
41-50	22	0	0	22(2.7%)
51-60	8	0	0	8(1.0%)
61-70	2	0	0	2(0.2%)
> 70	0	0	0	0(0.0%)
Total	837(99.4%)	4 (0.5%)	1(0.1%)	842(100%)

Fibroadenoma was commonly seen in age group of 11-30 years constituting 595 (70.5%) of all cases followed by 79 (25.8%) cases in age group of 31-40 years. Giant fibroadenomas (5) and multiple fibroadenomas (11) were more commonly seen in age group 21-30 years. Only one case of fibroadenoma was seen under 10 years and above 70 years.

**Table2** Symptomatology Of Fibroadenomas

Symptoms	Fibroadenomas N=837	Giant fibroadenomas N=4	Multiple fibroadenomas N=1	Total N=842
Breast pain	341(40.75%)	3(75%)	1(100%)	345(40.97%)
Breast lump	837(100%)	4(100%)	1(100%)	842(100%)
Nipple discharge	20(2.5%)	1(25%)	0(8.3%)	21(2.49%)

Considering the symptomatology of fibroadenomas, among a total of 837 cases, all the patients 842 (100%) presented with breast lumps. Breast pain was the next most common presenting symptom seen in 345 (40.97%) cases while nipple discharge was less commonly seen in only 21 (2.49%) cases.

In the present study, among a total of 306 cases of fibroadenomas, it was found that the mean duration of breast pain for fibroadenomas was 19.2 months with a range of 2-138 months while giant fibroadenoma and multiple fibroadenoma presented earlier with a mean duration of breast pain of 8.8 months (range 5-18 months) and 12.0 months (range 8-16 months). The mean duration of presentation of lumps in fibroadenomas was 11.8 months (range 1-120 months) while that of giant fibroadenomas and multiple fibroadenomas was 28.1 months (range 5-120 months ) and 22.1 months (range 6-60 months ) respectively. The giant fibroadenoma and multiple fibroadenoma took longer time to develop into the present size and number. Considering discharge, the mean duration for which discharge was seen in fibroadenomas was 15.3 months (range 4-28 months ) while it was only one month in case of multiple fibroadenomas (range 1-1 months ).

Considering the side of involvement of fibroadenomas, it was seen that right side was more commonly involved in solitary, giant and multiple fibroadenomas constituting 386 (46.12%), 3 (75%) and 0 cases respectively. Left side was less commonly involved constituting 363 (43.37%), 1 (25%) and 0 cases for solitary, giant and multiple fibroadenomas respectively. Bilateral involvement was least commonly seen in only 88 (10.51%)cases of solitary, 0 cases of giant and 1 (100%) cases of multiple fibroadenomas.

In the present study, among total 306 cases of fibroadenomas, it was found that upper outer quadrant was involved most commonly constituting 548(65.5%) cases followed by upper inner quadrant constituting 102 (12.2%) cases.

Next, in order of frequency comes the lower outer quadrant , constituting 100 (12%) cases then lower inner quadrant constituting 59 (7%) . All quadrant was least commonly involved 2 (0.2%) cases. Subareolar quadrant involvement was seen in 15 (1.75%) cases while more than one quadrant involvement was seen in 16 (1.35%) cases.

**DISCUSSION**

The breasts are accessible organ situated on the surface of the body and their examination is relatively easy, hence most of the breast lesions are palpable. Background knowledge of general features of individual breast diseases such as incidence, age distribution, symptoms and palpatory features are very important for correct diagnosis of breast diseases.

The present cross-sectional study was carried out in a rural medical college & hospital during the period 1<sup>st</sup> january 2013 to 30<sup>th</sup> june 2014.

**Table 3** Mean Duration Of Symptoms Of Fibroadenomas

Duration of symptoms	Fibroadenomas N=837 (mean in months)	Range in months	Giant fibroadenomas N=4 (mean in months)	Range in months	Multiple fibroadenomas N=1 (mean in months)	Range in months
Breast pain	19.2	2-138	8.8	5-18	12.0	8-16
Breast lump	11.8	1-120	28.1	5-120	22.1	6-60
Nipple discharge	15.3	4-28	0	0	1	1-1

**Table 4** Side Of Involvement Of Fibroadenomas

Side of involvement	Solitary	Giant	Multiple
Right	386(46.12%)	3(75%)	0(0%)
Left	363(43.37%)	1(25%)	0(0%)
Both	88(10.51%)	0(0%)	1(100%)
Total	837(100%)	4(100%)	1(100%)

Iyer SP *et al*<sup>7</sup> conducted a study and concluded that the sensitivity of clinical diagnosis in correlation to histopathological diagnosis for fibroadenomas was 95.45%, 100% for fibroadenosis, mastitis, galactocele and gaint fibroadenoma, 81.82% for breast abscess.

**Table 5** Quadrant Of Involvement Of Fibroadenomas

Quadrant involved	Solitary Fibroadenomas N=837	Giant fibroadenomas N=4	Multiple fibroadenomas N=1	Total N=842
UO	548(65.5%)	0 (0%)	0 (0%)	548(65.5%)
UI	102 (12.2%)	0 (0%)	0 (0%)	102 (12.2%)
LO	100 (12%)	0 (0%)	0 (0%)	100 (12%)
LI	59 (7%)	0 (0%)	0 (0%)	59 (7%)
Subareolar	15 (1.75%)	0 (0%)	0 (0%)	15 (1.75%)
All quadrant	0 (0%)	1(25%)	1 (100%)	2 (0.2%)
> 1 quadrant	13 (1.55%)	3 (75%)	0 (0%)	16 (1.35%)
Total	837	4	1	842

Among a total of 1236 with benign breast diseases, fibroadenoma was the most common lesion constituting 842 (68.12%) cases which included 837 (67.90%) fibroadenomas, 4 (0.32%) giant fibroadenomas and 1(0.08%) multiple fibroadenomas. The observations and findings can be discussed as follows:

In the present study, fibroadenoma was more commonly seen in age group of 11-30 years. Similar results were shown by Khanna S *et al*<sup>6</sup> in (11-30 years), Iyer SP *et al*<sup>7</sup> (<30 years), McFarlane MEC *et al*<sup>8</sup> (mean 20 years), Ochicha O *et al*<sup>9</sup> (mean 21 years), Siddiqui *et al*<sup>10</sup> (mean 27 years), Akhator A *et al*<sup>11</sup> (mean 23.9 years) and Irabor DO *et al*<sup>12</sup> (mean 24.4 years). In most of the above mentioned series, fibroadenoma had the most common age of presentation 11- 30 years. Thus, the present study is in concordance with the studies available in the literature.

In the current study Left side was most commonly involved in solitary and giant fibroadenomas constituting 65(45.77%) cases. Right side was less commonly involved constituting 62(43.66%) cases. Bilateral involvement was least commonly seen in only 15(10.87%) cases. Akhator A *et al*<sup>11</sup> conducted a study and concluded that fibroadenoma was more commonly seen in left side constituting 53 (49.9%) cases as compared to right side 46 (43.4%) cases while bilateral involvement was seen in 7 (6.6%) cases.

Among all cases of fibroadenomas, the upper outer quadrant was involved more commonly constituting 72(50.70%) cases. Haque *et al*<sup>5</sup>, Gupta JC *et al*<sup>13</sup>, Alam *et al*<sup>14</sup>, Hussain *et al*<sup>15</sup>, Iyer SP *et al*<sup>7</sup> in their study found that upper outer quadrant was involved more commonly in patients with benign breast lumps. The clinical diagnosis for fibroadenomas was correlated with histopathology and sensitivity of clinical diagnosis was found to be 98.18% for fibroadenoma.

The present study is in agreement with clinical sensitivity for diagnosis of fibroadenomas.

## CONCLUSION

The common benign breast diseases seen in a rural setup include fibroadenomas followed by fibroadenosis, breast abscess, mastitis, gaint fibroadenomas and galactocele in that order. Through conservative management or observation can be followed in young women.

## References

1. Haagensen CD. Diseases of the breast. Third ed: Saunders, W. B.; 1986.
2. Iglehart JD. Diseases of Breast. In: Townsend CM, ed. Sabistan Textbook of Surgery. 16 th Edition ed: Saunders Company; 2001:555 - 90.
3. Shukla HS. An outline of benign breast diseases. In: Recent advances of surgey R L Gupta; 1992.
4. Wilkinson S, Anderson TJ, Rifkind E, Chetty U, Forrest AP. Fibroadenoma of the breast: a follow-up of conservative management. Br J Surg 1989;76:390-1.
5. Haque A. Breast lesions a clinicohistopathological study of 200 cases of breast lump. Indian Journal of Surgery 1980;August:419 - 25.
6. Khanna S. Spectrum of breast disease in young females: A retrospective review of 22 years. Indian Journal of Surgery 1988;May - June:169 - 75.
7. Iyer SP. Epidemiology of Benign Breast Diseases in Females of Childbearing Age Group. Bombay Hosp Jr 2000;42:10.
8. McFarlane ME. Benign breast diseases in an Afro-Caribbean population. East Afr Med J 2001;78:358-9.
9. Ochicha O. Benign Breast Lesions in Kano. The Negerian Jr of Surg Research 2002;4:1-5.

10. Siddiqui MS. Breast diseases - a histopathological analysis of 3279 cases at a tertiary care centre in pakistan. *Jr Pak Med Asso* 2003;53 (3):5.
11. Akhator A. Benign Breast Masses in Nigeria. *Nieg Jr of Surg Sciences* 2007;17:105 - 8.
12. Irabor DO. An audit of 149 consecutive breast biopsies in Ibadan,Nigeria. *Pak J Med Sci* 2008;24 (2):257 - 62.
13. Gupta JC. Breast lumps in jabalpur area. *Ind J Surg* 1983;May:268 - 73.
14. Alam AM. Breast carcinoma and its clinicopathological aspects - A study of 117 cases. *Bangladesh Med Jr* 1991;24:1-13.
15. Hussain MA. Incidence of cancer breast at Aligarh. *J Ind Med Asso* 1994:290 - 7.

**How to cite this article:**

Bharati Pandya *et al.*, Clinical Profile Of Fibroadenoma In Rural Vidharbha : A Geographical Entity In Central India. *International Journal of Recent Scientific Research* Vol. 6, Issue, 7, pp.5117-5120, July, 2015

\*\*\*\*\*