



A CROSS-SECTIONAL STUDY ON FREQUENCY AND FACTORS ASSOCIATED WITH FIBROADENOMA AMONG YOUNG FEMALE (18-35 YEARS) OF NAWABSHAH, SBA SINDH PAKISTAN.

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ABSTRACT

BACKGROUND: Fibroadenoma (FA) or benign breast tumor is common painless lesion of breast that is usually unilaterally, non-cancerous present among young women, It can occur at any age but commonly found in 14-35 years age-group. Fibroadenoma are usually smooth, mobile, no tender and rubbery in consistency, They are assumed to be aberrations of normal breast development or the product of hyperplastic processes, rather than true neoplasm recently researcher had been proved through different evidence or research studies in developing and developed countries that there is association of benign tumor or mass with different modifiable and non-modifiable factors. This study will help to enhance the awareness among community or health care staff regarding early detection of fibroadenoma so that can able to decrease the cases of breast cancer among high risk female. This study was planned to assess the frequency and associated factors related among females of Nawabshah.

OBJECTIVE: This research study was aimed to measure Frequency and factors of Fibroadenoma among young adult female (18-45 years) visiting at Tertiary care hospital, **DESIGN OF STUDY:** Descriptive Cross-Sectional study. **PLACE AND DURATION:** Surgical OPD of Peoples Medical College, Hospital (PMCH), from August 2023 to November 2023. **MATERIAL & METHODS:** This cross-sectional study was conducted during August-November 2023 on 310 females, Tertiary care hospitals in Nawabshah, with age group of 18-15 years filtered at OPD from females who are visiting at tertiary hospital. The data collection instrument consisted of a section on demographic information and relevant variable. The analysis of data was done through SPSS v 23, and Data analysis involved in the use of descriptive statistics and chi square test were used. **RESULTS:** In this study, 11.6% found fibroadenoma among young females age group were 23-26 years as compared to other age. **CONCLUSION:** The frequency of fibroadenoma or non-cancerous lesion was high among young adult females visiting in tertiary care hospital in Nawabshah. However, analytic studies examining causes associated with it are needed.

KEYWORDS: Nurses, Tertiary care hospital, Fibroadenoma, young female, benign

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INTRODUCTION

Fibroadenoma are normal harmless sores of the bosom that typically present as a solitary bosom mass in young ladies. Fibroadenoma are generally smooth, portable, no delicate and rubbery in consistency, They are thought to be variations of typical bosom advancement or the result of hyperplastic processes, as opposed to genuine neoplasms. ¹ Fibroadenoma contain around half of all bosom biopsies, and this rate increases to 75% for biopsies in ladies under age of 20 years. ² Around the world, the frequency of Fibroadenoma diminishes with expanding age and by and large found before 30 years old in female overall population. It is assessed that 10% of the world's female populace experiences Fibroadenoma once in a blue moon. ³ In 2019, the commonness of Fibroadenoma in South China in youthful grown-up female was pretty much as high as 27.6%. ⁴ In Nigeria (2009-2013), Fibroadenoma was the most widely recognized harmless bosom sickness (BBD) representing 45.6% of the multitude of instances of harmless bosom sores analyzed histopathological. The mean period of Fibroadenoma was 23.1 years. ⁵ In Iran (1994-2004), The normal age was somewhere in the range of 26 and 30 years; 57.8% had menarche before 12 years of age; 67.3% of patients utilized oral preventative; 11.9 were single; the gamble of Fibroadenoma diminished with expanding number of full-term pregnancies; 10.2% had first pregnancy at age more than 35 years; 36.4% had breastfed; 7.9% had smoked cigarettes; 36.9% of patients had just mammography, 82.1% just had sonography assessment, and 28.9% had both, the left bosom was impacted somewhat more than the right; the most continuous area was the upper external quadrant; 24.7% had numerous growths; 12.2% had foundation and 62.9% had family background of fibroadenoma; 17.6% had threat in pathology report. ⁶ In Afghanistan (2015-2019), The second most common diagnosed lesion was fibroadenoma, consisting 22.4% among all breast diseases diagnosed by fine needle aspiration cytology. ⁷ In Saudi Arabia (2019-2020), The benign breast lesions included 47.6% fibroadenoma. Fibroadenoma is the commonest benign breast lesion there. ⁸ In Peshawar, Pakistan (2016-2017), On true-cut biopsy, fibroadenoma was high in age group of 21 to 25 years i.e 14.5%. Fibroadenoma was

most common on left side i.e 26.1% patients and most common quadrants were inferolateral in 21.3% and superolateral in 18.2% patients. ⁹ Fibroadenoma are more successive among ladies in higher financial classes ^{10 11} and in darker looking populaces. ¹² A family background of bosom disease in first-degree family members was accounted for by certain examiners to be connected with expanded chance of fostering these cancers. ¹³ The time of menarche, the period of menopause, ¹¹ and hormonal treatment, including oral contraceptives, were shown not to change the gamble of these sores. ¹⁴ On the other hand, weight file and the quantity of full-term pregnancies were found to have a negative relationship with the gamble of fibroadenomas. ^{10 11} In addition, utilization of huge amounts of nutrient C ¹⁵ and cigarette smoking ¹⁶ were viewed as related with decreased chance of fibroadenoma. ¹¹ A Fibroadenoma is most frequently recognized unexpectedly during a clinical assessment or during self-assessment, typically as a discrete single bosom mass of 1-2 cm. ^{17 18} Despite the fact that they can be found anyplace in the bosom, the greater part are arranged in the upper external quadrant. ¹⁹ The yield of mammography in young ladies is low, and its job in the determination of Fibroadenoma is restricted. Notwithstanding, it might uncover highlights of infiltrative sores in more seasoned ladies. ²⁰ Fine needle desire (FNA) has turned into a well known strategy in the assessment of bosom masses. ²¹ A few examinations have demonstrated that FA is risk factor for creating bosom disease. ²² The favored administration of different Fibroadenoma is finished extraction. Be that as it may, this approach can prompt unfortunate scarring or to broad ductal harm assuming all the Fibroadenoma are extracted through one entry point. ²⁴

MATERIALS AND METHODS

This Descriptive cross-sectional study was conducted on female general population visiting at tertiary care hospital at Nawabshah (PMCH), A total 310 females were participated in study. The duration of study started from August 2023 to November 2023. Data collected after approval of Research Proposal and permission of Ethical committee, approval was taken from Institutional Review Committee (IRC) of Department of Community Medicine,.

Permission was also taken from the head of surgical Department of PMCH. The questionnaires were anonymously administered to the female at OPD after selecting age group. Before administering the questionnaires, informed consent was taken from the participants. Participants were free to refuse to participate in this study. Data were kept confidential, and anonymous. The participants were identified with special identification codes, which were made known only to the research team. Following were study instruments used during data

collection. The structured questionnaire. It consists of 39 multiple-choice and closed ended questions.

STATISTICAL DATA ANALYSIS

Analysis of data was done by using software that is SPSS version-23. Demographic data were summarized by descriptive statistics, which was presented by using frequency tables and expressed as mean \pm SD, percentages.

RESULTS

The results of this study show that, Out of 310 participants in the current study,

Table-1 Socio-economic and Demographic factor of Target Population (n=310).

Variable	Category	Frequency	Percentage
Area of Residency	Urban	129	41.6
	Rural	181	58.4
Marital Status	Single	89	28.7
	Married	199	64.2
	Divorced	10	3.2
	Widow	12	3.9
Educational level	Illiterate	130	41.9
	Primary	65	21.0
	Middle	62	20.0
	Higher	43	13.9
	Graduate	8	2.6
	Other	2	.6
Age of Menarche	11	34	11.0
	12	56	18.1
	13	92	29.7
	14	71	22.9
	15	56	18.1
	10	1	.3
Occupation	Working women (after marriage)	52	16.8
	House wife	176	56.8
	Working women (without marriage)	29	9.4
	Non-working women (without marriage)	53	17.1

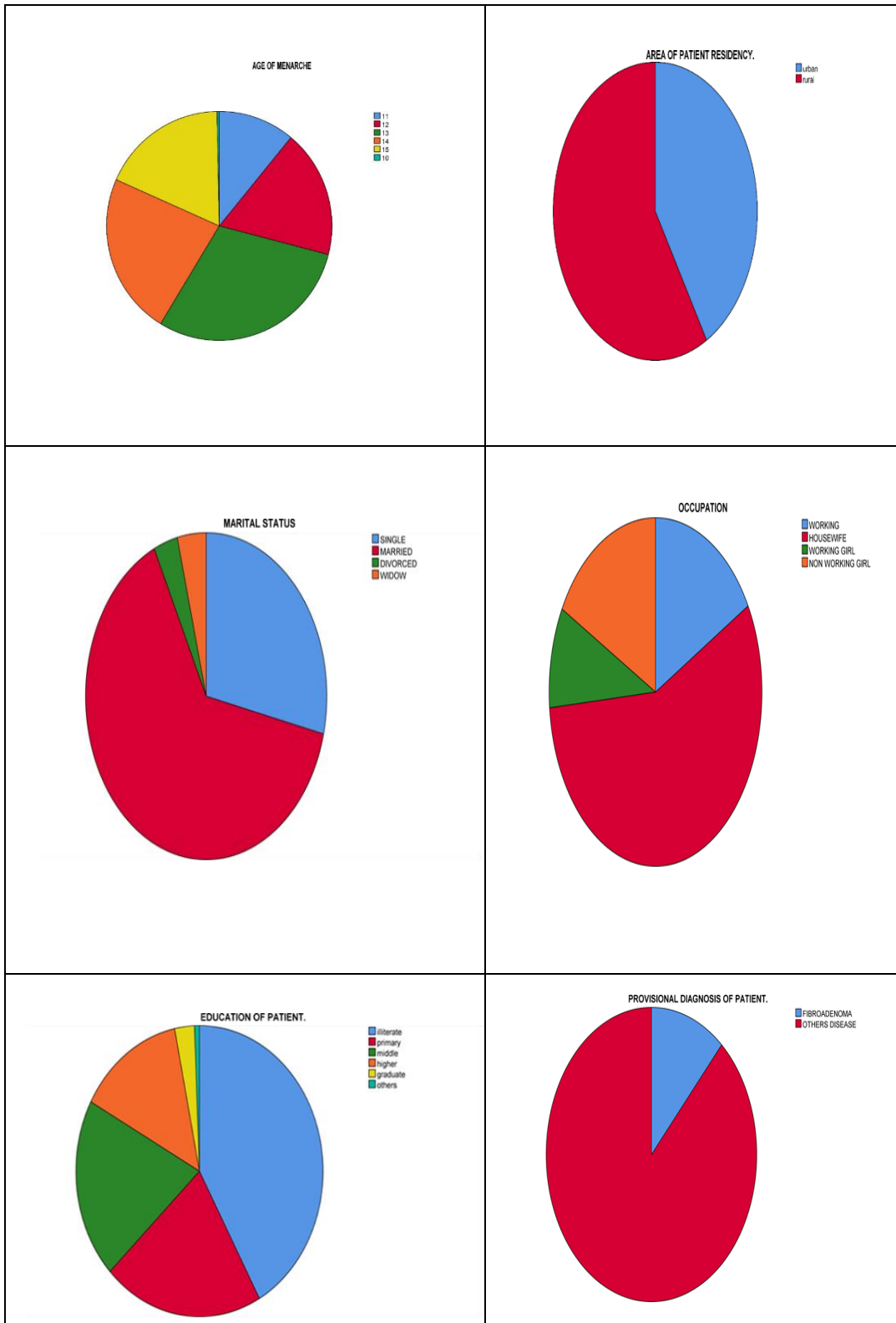


Table:2 There is higher number of cases of fibroadenoma found among young females of Nawabshah its indicate need to take action against its prevention

Variable	Frequency	%	Valid %	Cumulative %
Fibroadenoma	36	11.6	11.6	11.6
others	274	88.4	88.4	88.4
Total	310	100.0	100.0	

Table 3: Proportion of Provisinally Diagnosed Fibroadenoma cases age wise (n=310)

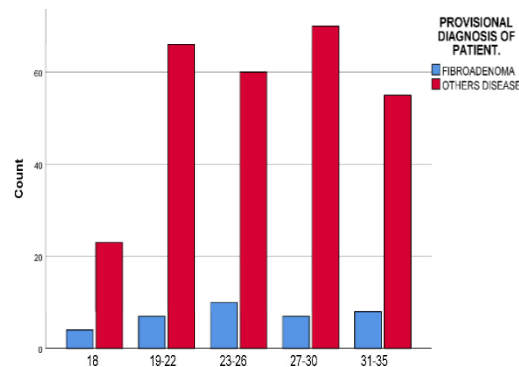
The majority of fibroadenomas are in the age group of 23 to 26 were found in my study while only 4 patients were found in the age group of 18 years.

Variable	Category (age group)	Provisional Diagnosed Fibroadenoma	Frequency	Percentage
Age	18	4	27	14.81
	19-22	7	73	9.58
	23-26	10	70	14.28
	27-30	7	77	9.09
	31-35	8	63	12.69
Total		36	274	11.6

DISCUSSION

The purpose of the current study was to determine the frequency of fibroadenoma, and their association and frequency risk factors among general population of female visiting at tertiary care hospitals in Nawabshah. Our research studies shows in results that among the patients aged 18, 14.8% had fibroadenoma and 85.2% had other diseases. In 18-year-olds, the reasons for fibro adenoma can vary. Some possible factors could be hormonal changes during puberty, genetic predisposition, or hormonal imbalances. For the patients aged 19-22, 9.6% had fibro adenoma and 90.4% had other diseases. In the age group of 19-22, the

reasons for fibro adenoma can still be



influenced by hormonal changes and fluctuations. Other factors may include genetic predisposition, hormonal imbalances, and certain lifestyle factors. Among the patients aged 23- 26, 14.3% had fibro adenoma and 85.7% had other diseases. In married females, hormonal changes related to pregnancy and breastfeeding can also contribute to the development of fibro adenoma in the age group of 23-26. For the patients aged 27-30, 9.1% had fibro adenoma and 90.9% had other diseases. Lastly, among the patients aged 31-35, 12.7% had fibro adenoma and 87.3% had other diseases. In the age group of 30-35, the reasons for fibro adenoma can still be influenced by hormonal changes, genetic predisposition, and hormonal imbalances. Other factors may include certain lifestyle factors and previous hormonal fluctuations from pregnancy or breastfeeding. In another table it was explained that : Among the single patients (89 in total), approximately 10.11% have fibro adenoma. And in married patients (199 in total), approximately 12.06% have fibro adenoma. The reason for a higher rate of fibro adenoma in married patients compared to single patients could be attributed to hormonal changes related to pregnancy and breastfeeding, as well as other factors like hormonal imbalances and genetic predisposition. Among the divorced patients (10 in total), approximately 30% have fibro adenoma. The reason for fibro adenoma in divorced females can still be influenced by hormonal changes, genetic predisposition, and hormonal imbalances. Other factors may include certain lifestyle factors and previous hormonal fluctuations from pregnancy or breastfeeding. Among the widowed patients (12 in total), none of them have fibro adenoma. In the end results shows: Among the patients who breastfed their child for 6 months (160 in total),

approximately 11.88% were diagnosed with fibro adenoma, while approximately 88.13% were diagnosed with other diseases. Among the patients who did not breastfeed their child for 6 months (150 in total), approximately 11.33% were diagnosed with fibro adenoma, while approximately 88.67% were diagnosed with other diseases. Based on the data provided, it appears that the percentage of patients diagnosed with fibro adenoma is slightly higher among those who breastfed their child for 6 months compared to those who did not breastfeed. However, it's important to note that correlation does not necessarily imply causation. There could be various factors contributing to this observation, such as hormonal changes during breastfeeding or other individual differences. It's possible that the higher rate of fibro adenoma in patients who breastfed for 6 months could be influenced by hormonal changes during breastfeeding. Additionally, breastfeeding may have other effects on breast tissue that could contribute to the development of fibro adenoma. Later results shows: Among the patients who used oral contraceptives (48 in total), approximately 16.67% were diagnosed with fibroadenoma, while approximately 83.33% were diagnosed with other diseases. Among the patients who did not use oral contraceptives (262 in total), approximately 10.69% were diagnosed with fibroadenoma, while approximately 89.31% were diagnosed with other diseases. It's possible that the higher rate of fibroadenoma in females who use oral contraceptives could be influenced by hormonal changes caused by the contraceptives. Oral contraceptives contain synthetic hormones that can affect the breast tissue. Hormonal changes during puberty, pregnancy, and menopause can influence the development of fibroadenomas. Additionally, certain genetic mutations may increase the likelihood of developing these benign breast tumors. The best of possible knowledge, it is one the first study which determines the frequency of and fiberadenoma , and their association among females in Nawabshah . It is recommended that future studies should include large scale sample size from diverse settings. Appropriate preventive and measure and reporting strategies at community are required to be in place.

LIMITATIONS

The study was based on self-reported data and hence Subjective in nature. Another limitation is that the study was of cross-sectional design and a causal relationship cannot be established.

CONCLUSION

This study addresses the frequency and risk factors of fibroadenomas in young women and carries the potential to inform effective preventive and management strategies. The outcome is anticipated to have a significant impact on women's health in the Pakistan.

RECOMMENDATION:

The study's findings will provide insights into the prevalence and associated factors of fibroadenomas among young adult females in Nawabshah. This knowledge will be crucial for evidence-based recommendations to enhance the prevention and management of fibroadenomas in this age group.

ETHICS APPROVAL: The ERC gave ethical review approval.

CONSENT TO PARTICIPATE: written and verbal consent was taken from subjects and next of kin.

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CONFLICT OF INTEREST: No competing interest declared.

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