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INSTRUCTIONS TO AUTHORS

1) The Editor will consider for publication papers reporting research works, review articles and case reports relevant to different aspects of medical sciences. In particular, community oriented field studies in health care and medical education are considered. Medical news and letters to the Editor are also accepted for consideration.

2) An article is received with the understanding that it is submitted solely to our journal.

3) Accepted language is English.

4) Submitted material is subject to evaluation and edition by selected reviewers.

5) The International System of Units (SI) or the metric systems are to be used for measurements.

6) Manuscripts including tables and illustrations, are to be submitted in triplicate with a covering letter signed by all authors, to the Editorial Office, Tikrit Medical Journal, Tikrit University, College of Medicine, P.O. Box 45, Tikrit 28001, Iraq.

7) All submitted materials are preferably computer typed with an actual typing space of 48 Roman characters (2.5X2.5 mm each) per line with a page of 45 lines (double space).

8) Rigorous adherence to the (Uniform Requirements for Manuscripts Submitted to Biochemical Journals) published by the International Committee of Medical Journal Editors in 1979 and revised in 1981,

should be observed (see Annals of the College of Medicine, Mosul, 1988 vol. 14 : 91-103).

9) Each part of the manuscript should begin on a new page (unless computer typed), in the following order : title; abstract; actual text (usually comprising a short relevant introduction, materials or patients and methods, results, discussion); acknowledgment; references; tables and illustrations. Number all pages consecutively on mid-bottom part of each page, starting with the title page as page one. The title page should contain:-

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A- The title of the paper (but not the names and addresses of the authors).

B- A self-contained and clear abstract representing all parts of the paper in no more than 250 words. A translated abstract in Arabic or English (according to paper language) is also required.

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10) References should be numbered consecutively both in the text and the list of references, in the order in which they appear in the text. The punctuation of the Vancouver style should strictly be followed in compiling the list of references. The followings are three examples :

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B- For books : authors, title, edition, place, publisher, year and page :-

Boon, NA., Colledge., NR., Walker, BR. Davidson's principles & Practice of Medicine, 20th edition. Churchill Livingstone. NY. 2006. 17-36.

C- For chapter in a book : author, title of chapter, name of editors, title of book, place, publisher, year and page : -

Boon NA., Cumming AD, John G. Good Medical Practice. In: Boon, NA., Colledge., NR., Walker, BR. Davidson's principles & Practice of Medicine, 20th edition. Churchill Livingstone. NY. 2006. 3-16.

Graphs, line drawings, photographs, printed X-ray pictures and other illustrations are accepted only if they add to the evidence and understanding of the text. They should be of high quality and in a form suitable for reproduction by the Printer. Legends to the figures should be typed on a separate sheet.

11) The titles of journals should be abbreviated according to the style used in Index Medicus.

12) Manuscripts should be accompanied by a disk containing the full text and figures and/or tables in Microsoft Word or Windows Write formats or ASCII. Figures should be done using Harvard Graphics package or Microsoft Excel

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Prevalence of Breast fibroadenoma among patient attended breast clinic in Mosul district in Iraq

Dhafar Mahmood Omar[1]

(1) **Al-Jamhoori teaching hospital**
Iraq

Keywords:

Prevalence ,
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ABSTRACT

Background: The most prominent benign tumor of the female breast is fibroadenoma. It is particularly prevalent among young women around the world.

Objective(s): Identification of the most common risk factors for fibroadenoma among Iraqi women in the city of Mosul, which contributes to early classify women who are at high risk of developing breast cancer after being diagnosed with fibroadenoma.

Method: The biometry study design was adopted from Jan 2020 to Dec 2020 from Al-Jamhoori and Al-Kansa hospitals in the city of Mosul where have been included 102 patients in this study. Cases were identified from biopsies examined at the two hospitals" pathology departments and were included in the study only if the diagnosis was reconfirmed by the study pathologist.

Results: Fibroadenoma was diagnosed at an average age of 32.6 years. Fibroadenoma (FA) was shown to increase the risk of participant characteristics considered to increase the risk of breast cancer with family history and higher education. Participants with established FA protective features (older age at menarche, more children) were shown to have a lower risk of fibroadenoma.

Conclusion:

We demonstrated that biopsy-confirmed fibroadenomas can be detected early. Biopsy confirmation of a fibroadenoma may be more prevalent more likely in older women, thus, caution is needed if the findings are to be applied to fibroadenomas diagnosed at a younger age.

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*Corresponding author E mail : **Dhafarmo@gmail.com**

Introduction:

Benign breast disorders are very widespread, and they can cause a great deal of psychiatric trauma and a lower quality of life for those who are diagnosed with them [1]. Women with benign breast diseases have an increased risk of developing breast cancer [2] and is not limited to the breast where the benign breast disease was discovered. This means that the two breast diseases may have shared early ancestors or have common causes, but they evolve in different ways at an early stage. As a result, benign breast diseases are considered a recognized risk factor for breast cancer, and benign lesions have been diagnosed in many breast cancer risk assessment models [2, 3]

Fibroadenoma is a benign lesion characterized by a nodule of fibrous tissue with epithelial components [4]. Fibroadenomas are associated with a moderately elevated risk (2–3-fold) of developing breast cancer later in life [5]. While the elevated risk of breast cancer associated with other benign breast conditions such as atypical hyperplasia can fade over time [6], the risk conferred by fibroadenoma is said to be permanent and does not change over time [7]. These lesions affect around one out of every four women [8, 9]. The risk of fibroadenoma increases at a young age (20–30 years), and gradually declines until it reaches a low point during menopause [6]. While fibroadenoma is normal in young women, the breast mass also shrinks or regresses as they get older [10], founded that between 10% and 40% of the time, the mass disappears spontaneously in young people[1, 10]. In a study of the treatment of breast fibroadenomas. stated that approximately 60% of all fibroadenoma cases observed were fully resolved after approximately 30 years [11]. As a result, older women are less likely to develop fibroadenoma.

Medical assessment (manual breast examination and palpation), mri

(mammography or ultrasound), and cytology (fine-needle aspiration cytology or core biopsy) are both used to diagnose breast fibroadenomas [12]. Since fibroadenomas appear to naturally regress with age, breast lesions diagnosed in younger patients are often treated conservatively with a wait-and-see strategy [13]. Recent research suggests that modern ultrasound is a reliable method for diagnosing fibroadenoma in younger women presenting with breast symptoms, and that a pathology work-up is only needed if there is a significant clinical problem [14, 15]. Fibroadenomas in older women, on the other hand, are more often exposed to a triple examination and are handled more vigorously (e.g., surgical excision) [16]. Although the peak prevalence of fibroadenoma and breast cancer is associated with age in various ways, fibroadenoma and breast cancer tend to share a variety of risk factors [17, 18]. Women with a higher social status and those who had their menarche early have a higher chance of contracting these breast diseases [19].

Some researchers have linked a family history of breast cancer in first-degree kin to an elevated chance of developing benign lesions [20]. The number of biological offspring, on the other hand, has been linked to both fibroadenoma and (premenopausal) breast cancer[11]. For fibroadenoma, there has been less clear evidence of a connection between age of menarche, age of menopause, and hormone treatment, including oral contraceptives [15].

The high prevalence of fibroadenoma and the rising risk of breast cancer highlight the importance of distinguishing between benign and malignant breast disease. The epidemiology of fibroadenoma and the possibility of developing breast cancer is still unknown, so more studies need to be conducted in order to detect it.

Materials and Methods

We have been included 102 patients

in this study from Jan 2020 to Dec 2020 from al-Jamhoori and al-Kansa hospitals in the city of Mosul. Cases were identified from biopsies examined at the two hospitals" pathology departments and were included in the study only if the diagnosis was reconfirmed by the study pathologist where the biometry study design was adopted.

Information on possible risk factors for fibroadenoma was obtained by personal interview using a standardized, structured questionnaire containing: Level of education, Age, Family history, Oral contraceptives, Number of children. correlation between the mentioned variables and fibroadenoma finding the number, percentage, and P-value by using the SPSS statistical analysis program.

Result:

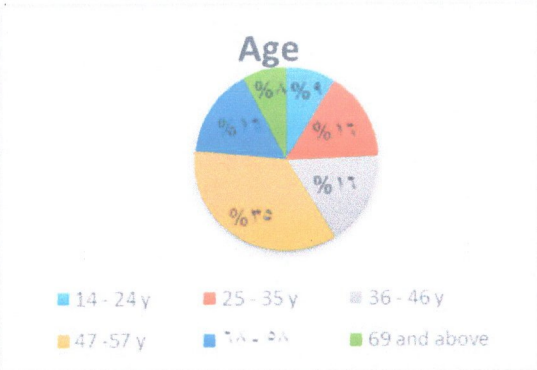

Figure 1: Distribution of age according to fibroadenoma

The mean age of all breast fibroadenoma patients was 35.6 years (SD= 11.1, range 14-89 years), out of 102 patients, 9 patients (8.82%) were between 14-24 years, 16 patients (15.69%) were between 25-35, 17 patients (16.67%) were between 36-46, 36 patients (35.29%) were between 47-57, 16 patients (15.69%) were between 58-68, and 8 patients (7.84%) were ≥ 69 years' old such as (Fig 1).

Participant characteristics are described in Table 1. The mean age at the start of follow-up of 102 participants in this study was 32.6 years. Around half the women

attended university (50.98%). women (83.33%) reported a family history of breast cancer. A large majority of all women reported the use of combination birth control pills, which are oral contraceptives that contain both estrogen and progestin (61.76%). The use of the minipill, also known as the progestin-only birth control pill, was less common (13.73%). At the start of follow-up, 45.1% of the women did not have any children.

Table 1: The correlation of fibroadenoma with socio-demographic characteristics

Variables		**Frequency (N= 100)**	**Percent**	**P-value**
Level of Education	Elementary	16	15.69	0.463
	Intermediate	34	33.33	
	University	52	50.98	
Family history of breast cancer	yes	85	83.33	0.418
	No	17	16.67	
Age at menarche	< 13 y	19	18.63	0.565
	≥13 y	83	81.37	
Ever oral contraceptive use	No	25	24.51	
	Progestin-only "mini" pill	14	13.73	0.001
	Combination pill	63	61.76	
Number of children	0	46	45.10	0.505
	1	16	15.69	
	≥2	40	39.22	

Discussion

Our findings on fibroadenoma risk factors were largely consistent with previous research and breast cancer risk factors. Education is noted for its positive associations with breast cancer, as it is the sum total of several breast cancer risk factors attributable to parity, diet, participation, and screening

compliance, Akhtar et al 2021 and Matalqah et al 2011 found that first-degree mothers had a greater chance of young breast cancer patients 1.5 times the incidence of breast epithelial disorders (including fibroadenomas) compared to people in the general population and these results were similar to ours [18, 20]. Berkey et al 2012 A family history of breast cancer has been linked to an increased risk of breast cancer in young adults with benign breast disease (70 percent of whom have fibroadenoma), which is somewhat similar to what we found in our study. [10]. Our findings suggest that relevant associations between family history and breast cancer favor a common genetic link. While there is little support for age at menarche, later in the menstrual cycle is usually associated with a lower chance of developing fibroadenoma. Our results were close to those of Matalqah et al. 2011 in their study [20].

Dyrstad et al 2015 and Howard et al 2018 found that using oral contraceptives, especially estrogen preparations with a progestin, decreased the occurrence of begin breast disease (including fibroadenomas), to the point where the preventive effect against begin breast disease was considered non-contraindicated. For the sake of breastfeeding. Oral condoms have health benefits [16, 21]. The lower risk associated with begin breast disease, on the other hand, compares with the well-known link between oral contraceptives and an increased risk of breast cancer. Both opposing results can be explained in part by the fact that the hormones in the birth control pill can induce mitosis in transformed cells while still preventing tumor development in normal or untransformed cells Dyrstad et al 2015 [16]. However, we found no link between oral contraceptive use and the development of fibroadenoma or breast cancer. It is possible that the lack of results is due to the fact that

the chances of all breast cancers are limited to those who have recently used oral contraceptives and this is suggested Schindler et al 2013 [22]. Compared with the birth control pill combinations of the 1970s, modern birth control pill combinations include significantly lower levels of estrogen and progestin, which can reduce reported symptoms of fibroadenoma and breast cancer, Vascellari et al 2016 found in their study [23] It should be noted that assuming the effects of a transmission covariate could result in a model increase, particularly in processes with a low number of events (e.g., transformation from fibroadenoma to breast cancer) Eulenburg et al 2016 [24]. The finding that oral contraceptive use is associated with the progression of fibroadenoma to breast cancer is intriguing, but needs to be confirmed in further research. Aside from the fact that fibroadenoma is a risk factor for breast cancer in itself, the age at which fibroadenoma is diagnosed is also a risk factor for breast cancer. Our findings revealed that elderly women with biopsy-confirmed fibroadenomas have a higher chance of developing breast cancer later in life. Previous studies have shown that elderly people with fibroadenoma have a greater chance of concurrent malignancy, while conservative treatment of fibroadenoma may be prescribed to younger women, our results suggest that for older women, a more aggressive approach may be necessary. For women over the age of fifty and this is what he found Dyrstad et al 2015 in his study [16].

Conclusion:

We demonstrated that biopsy-confirmed fibroadenomas can be detected early. Validation of our results would entail further research on a potential population. Other risk factors for breast cancer, such as alcohol use and the BMI pathway, need further study. Participants in the study were members of a group that underwent screening or clinical

mammography and hence could have a higher level of health or financial awareness than the general public. It's also worth noting that this research only looked at fibroadenomas that had been confirmed by biopsy. Biopsy confirmation of a fibroadenoma may be more likely in older women; thus, caution is needed if the findings are to be applied to fibroadenomas diagnosed at a younger age.

Recommendation:

More research is required to better explain fibroadenoma early detection and to classify women who are at high risk of developing breast cancer after being diagnosed with fibroadenoma.

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