Reasons for Reluctance to Mammogram Examination among Women Attending Early Detection Clinics for Breast Cancer in Mosul

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ABSTRACT:

BACKGROUND:

Cancer is the greatest cause of mortality in the world; Breast cancer claimed the lives of 2.26 million worldwide.

OBJECTIVE:

To determine the reasons for reluctance to examine the mammogram among women attending early detection clinics for breast cancer in the city of Mosul / Iraq

METHOD:

A cross-sectional study was carried out between January 2018 and December 2020. It was carried out in early detection clinics in Mosul's two major hospitals. Females who were diagnosed as breast cancer participants were included in the study.

RESULTS:

A Total of 384 women were diagnosed with breast cancer, (mean age 52.96 ±12.4 years) and the women are reluctance to examine the mammogram was 72.76 %. Reasons were unavailability of x-rays at 25.45%, fear at 20.43% and not knowing about a mammogram at 15.77%. There were 16.62%, 32.29%, and 17.18% of patients with stage-III breast cancer, 5.2%, 10.41%, 8.59% stage-II and 0.26%, 1.3%, 2.34% Stage-I who was discovered in the years 2018, 2019 and 2020 respectively. The percentage of cases with stage-IV decreased from 2% in 2018 to 1.3% in 2020.

CONCLUSION:

Unavailability of x-rays, fear and not knowing about mammography, were among the most important reasons for women reluctance to examine the mammogram. As well as the increase in the percentage of women who underwent examination in the second year of activating the early detection program for breast cancer, it was noted that the stage of the disease discovered in women gradually decreased during the research years.

There is an urgent need for more efforts to improve the early detection program for breast cancer and to classify women at risk of developing breast cancer according to risk factors.

KEYWORDS: detection, program, breast cancer, risk factor, Mosul.

INTRODUCTION:

Cancer is the greatest cause of mortality in the world, claiming the lives of 10 million people by 2020.[1] Breast cancer took the lives of 2.26 million people over the world. With around 2.1 million new cases recorded in 2018, it is the most common cancer in women, consisting of up to 25% of all female malignancies.[2] The majority of cases occur between the ages of 40 and 80, and the rate of occurrence increases as one gets older.[1,2,3] Between 1989 and 2012, breast cancer mortality rates in the United States fell by 36%. [1] Improvements in early diagnosis and subsequent systemic treatment were responsible for these gains.[4]

Breast cancer is the most common kind of cancer in Iraq's general population.[5]

Since the risk of developing breast cancer has grown, as has the availability of more information about it, breast cancer has become more prevalent.[6] Only a small percentage of women are aware of correct Breast Self-Examination or the importance of mammography in the identification of breast cancer.[5]

Apart from the inherited component, etiology is connected to a range of elements such as demography, reproductive factors, lifestyle behaviors, and other external conditions.

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Increase in cancer risks have been associated to advanced age, a positive family history, socioeconomic status, diet, endogenous or exogenous hormonal, atypical breast disease, polyps, carcinogenic viruses, and susceptibility to cancer. [7] According to previous study, women's knowledge of breast cancer risk factors, as well as the preventative factors and behaviors required to encourage early detection of the disease, is lacking. [8, 9] Women should be given the required knowledge in order to enable them to recognize any changes in their breasts as soon as feasible. As a result, increasing women's awareness of the need of early detection and visiting Early detection clinics for frequent tests is crucial as part of breast cancer prevention efforts. [10] Screening refers to diagnose and to detect an illness in persons who have no symptoms, such as cancer. Early detection is a method of detecting breast cancer in early stages. [9] Despite the fact that incidence, death, and survival rates vary fourfold around the world, the global incidence of breast cancer is growing, and mortality is increasing in places lacking early detection programs. The rising incidence of breast cancer in low-resource nations necessitates adaptive techniques to improve on the all-too-common pattern of disease presentation at a time when the prognosis is very poor. [11] The aim of this study is to determine the reasons for reluctance to examine the mammogram among women to attending the early detection clinics for breast cancer in the city of Mosul/ Iraq.

MATERIAL AND METHOD:

A cross-sectional study was carried out during the period January 2018 and December 2020. It was carried out in early detection clinics in Mosul's two major hospitals.

An intentional "non-probability" sample of 384 breast cancer patients was included in the research. Information for this study was acquired through a direct interview with the participants.

They're then recorded in checklists made just for this purpose. Initial diagnosis, tests are done, test findings and final diagnosis are all provided, as well as demographic information (gender, age, employment, residence, and nationality). The frequency index, relative frequency, and SPSS were used to analyze the data.

RESULTS:

The number of women who attended hospitals and specialized clinics for early diagnosis of breast cancer over a period of three years was 200647, with 384 individuals diagnosed with the disease. They varied in age from 15 to 85 years old. Patients between the ages of 43 and 58 were the age group most affected by breast cancer, followed by those between the ages of 59 and 74. Breast cancer has reached stage 3 in 66.4% of women, with 32.29% of women diagnosed in 2019. In the age category (43-58), 34.11% of women were diagnosed with stage 3 breast cancer, according to table 1. The majority of the patients 55.13 % had only received elementary education. When it came to having a family member with breast cancer, 76.92% of women said they had no relatives with the disease. Clinical Breast Examination was performed on the recommendation of the doctor by 67.31% of the patients, whereas 22.76 % did not. 41.67 % of the women conducted self-breast examinations on a regular basis (once a month) and 19.23 % did not know how to do so as shown in table2.

Table 1: Distribution by histological stages for studied women of breast cancer: a breast cancer early detection program.

Age group	Stage			
	St.1	St.2	St.3	St.4
11 -26	1(0.26%)	2 (0.52%)	6 (1.56%)	0 (0.00%)
27 – 42	8 (2.08%)	29 (7.55%)	31(8.07%)	4 (1.04%)
43 – 58	5 (1.3%)	38 (9.9 %)	131 (34.11%)	5 (1.3%)
59 – 74	1 (0.26%)	17 (4.43%)	70 (18.23%)	7 (1.82%)
75 -90	0 (0.00%)	7 (1.82%)	17 (4.43%)	5 (1.3%)

Table 2: Distribution by women's demographic characteristics: a breast cancer early detection program.

Variables		No. (%)
Age Group	11 -26	7 (1.82)
	27 - 42	53 (13.8)
	43 - 58	172 (44.79)
	59 - 74	112 (29.17)
	75 -90	40 (10.42)
Education	illiterate	53 (13.78)
	primary	212 (55.13)
	secondary	56 (14.74)
	university	63 (16.35)
Family History	Yes	89 (23.08)
	No	295 (76.92)
Clinical Breast Examination	Doctors' Advice	259 (67.31)
	Every Year	38 (9.94)
	No	87 (22.76)
Self-Breast Examination	Yes	160 (41.67)
	No	95 (24.68)
	Unknown	55 (14.42)
	I Don't Know How To Check	74 (19.23)

Table 3: Distribution According to Refuse causes of women to mammography test: Breast Cancer Early Detection Program.

Variables		No. (%)
Mammogram test	Refuse	279 (72.76)
	Agree	105 (27.24)
Refuse of Mammogram test	Agree	35 (12.5)
	Disapproves	236 (84.62)
	I don't now	8 (2.88)
Continue periodic examination of mammogram	yes	89 (84.62)
	NO	13 (12.5)
	I DON'T NOW	3 (2.88)
Causes of refuse	fear	57(20.43)
	painful	35(12.54)
	shame & modesty	41(14.7)
	I DON'T know presence of mammography test	44(15.77)
	Unavailability of x-rays	71(25.45)
	Several of the reasons mentioned together	31(11.11)

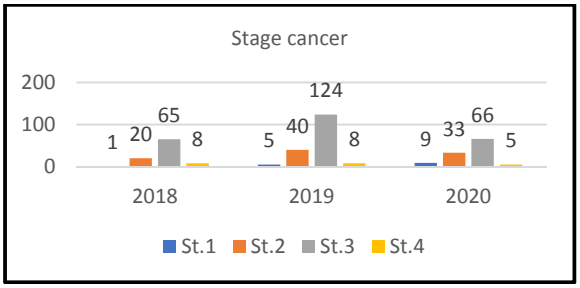

Fig 1:Stages of breast cancer .

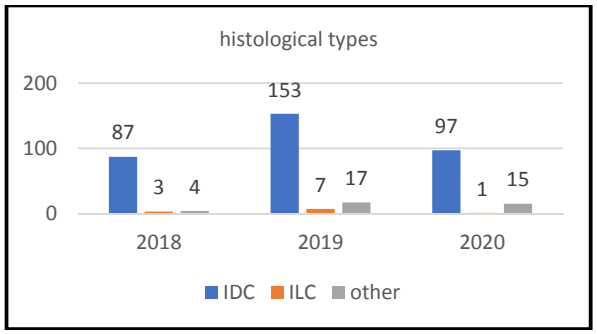

Fig 2: Histological types of breast cancer

The mammography test was completed by 27.24 % of the patients, while 72.76 % did not. Furthermore, 84.62% of the patients were hesitant to participate in the assessment. In addition, 84.62 % said they would be willing to do this test on a regular basis.

There were 87.76% patients with invasive ductal carcinoma (IDC), 2.6% patients with invasive lobular carcinoma (ILC), and 9.37% patients with other forms of the disease. In 2019, 46 % of women were diagnosed, compared to 24.47 % in 2018. (2).

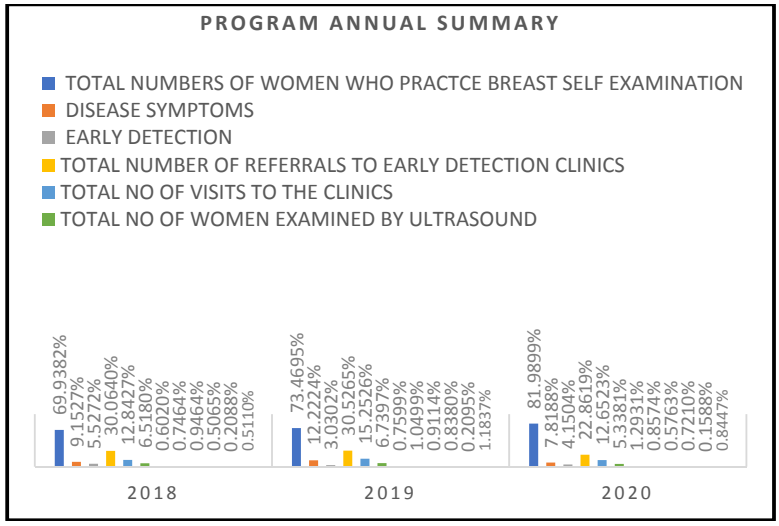

Fig 3: Annual summary of the work of the early detection program for breast cancer.

DISCUSSION:

Our results on breast cancer early diagnosis were consistent with Waks et al 2019. [10] Housewives had a greater risk of contracting the disease than the general population, according to Alwan et al 2019 and Waks et al 2019. [1, 10] A family history of breast cancer has been associated with an increased risk of breast cancer, which is similar to findings of Waks et al 2019.[10]

Age was associated with an increased risk of breast cancer, our findings indicated that women aged 43-58 had a higher percentage of breast cancer, which was similar to the findings of Kang et al 2018. This was likely owing to hormonal changes that occur in the body throughout this era of life. [12] Our findings revealed that 67.31 % did self-examination for breast cancer based on an advice of a specialist doctor, while 22.76 % did not, which is a large percentage, possibly due to ignorance of the importance of this examination as well as the lack of awareness about these instructions, in addition to the fact that 41.67 % were hesitant to perform the examination and 19.23 % did not realize how to do it which is similar to studied Mariotto et al. 2017 [13].

We found that 84.62 % had a reluctance or tendency not to take the mammographic test and the main causes of refusal to take the mammographic test were women fear 20.43%, unaware of the availability of this test 25.45%, feeling of humiliation and shyness 14.7%. This is near to the results discovered by Nair et al 2018 and Baran et al 2017; these obstacles may be addressed by increased awareness and educational activities. [14,15]

In terms of disease stage, 16.92 %of patients with stage 3 breast cancer and 5.2 %of patients with stage 2 breast cancer were detected in 2018, the first year of the early detection program, and this percentage climbed to 10.41 % for stage 2 and 32.29 % stage 3 In 2019, a patient has stage 3 cancer. While there were 10.41% of patients diagnosed with breast cancer in the second stage, there was a twofold rise in the number of patients diagnosed with breast cancer in the second stage. Then, in 2020, proportions reduced owing to the closure of early detection centers and diagnostic clinics as a result of the health curfew enforced as a result of the COVID-19 epidemic Swainston et al 2020 and Soran et al 2020 . [16,17]

On the other hand, we found that first-stage breast cancer patients were 0.26 % in 2018, but that 1.3% of patients were diagnosed with first-stage breast cancer in 2019, and 2.34 % of patients were diagnosed with first-stage breast cancer in 2020, despite the closure of early detection clinics in that year, but we have seen an increase in the percentage of patients diagnosed with first-stage breast cancer, maybe due to the increase in health awareness as a result of educational activities and this will leads to the early detection of breast cancer. Thus increasing the chance of successful treatment.[3] We also mention that the percentage of patients identified with breast cancer in the fourth stage has fallen from 2% in 2018 to 1.3 %in 2020.

CONCLUSION:

Unavailability of x-rays, fear, not knowing about mammography, and shame & modesty were among the most important reasons for women's reluctance to examine a mammogram. Education is associated with a lower risk of breast cancer. Also, a family history of breast cancer is clearly associated with an increased risk of breast cancer, the older women are, the more likely they are to develop breast cancer.

The third stage of breast cancer had the most patients with the second stage of breast cancer in 2018, the first year of the early detection program, and in the second year of the program's work, we noticed an increase in the second stage of the disease, was a double increase in the number of breast cancer patients in this stage. Then, in 2020, due to the closing of early detection centers and diagnostic clinics as a result of the health curfew imposed as a result of the COVID-19 pandemic, these percentages decreased.

On the other hand, we find that breast cancer patients in the first stage have increased successively during the years of the program's work. This may be due to the increase in health awareness as a result of educational activities, and this will lead to early detection of breast cancer and thus increase the chance of successful treatment.

Recommendation:

More efforts are urgently needed to activate breast cancer screening and strengthen the early detection program (EDP), as well as to identify women at risk of breast cancer based on risk factors, ages, and the spread of health awareness among women in particular and society in general. Considering the high number of breast cancer patients in Iraq who are still detected in the late and severe stages of the illness, there is a need to build an efficient screening program to improve prognosis and boost the level of EDP& Breast cancer screening more extensively in Mosul Province by:

1- The importance of promoting public awareness educational initiatives in order to boost our nation's early detection program, as well as raising knowledge of breast cancer and its risk factors.

2- It also necessitates the establishment of new early detection and screening clinics for breast cancer in various locations around Mosul, particularly in rural areas outside the city, with an integrated and specialized personnel and the most sophisticated screening equipment as required by the program.

3- Field survey by reactivating the governorate's breast cancer screening and early detection program using the mobile clinic.

REFERENCE:

1. Alwan NA, Tawfeeq FN, Mallah NA. Demographic and clinical profiles of female patients diagnosed with breast cancer in Iraq. Journal of Contemporary Medical Sciences. 2019;5:14-9.
2. Mutar MT, Goyani MS, Had AM, Mahmood AS. Pattern of presentation of patients with breast cancer in Iraq in 2018: A cross-sectional study. Journal of global oncology. 2019;5:1-6.

3. Ginsburg O, Yip CH, Brooks A, Cabanes A, Caleffi M, Dunstan Yataco JA, et al. Breast cancer early detection: A phased approach to implementation. Cancer. 2020;126:2379-93.
4. Birnbaum JK, Duggan C, Anderson BO, Etzioni R. Early detection and treatment strategies for breast cancer in low-income and upper middle-income countries: a modelling study. The Lancet Global Health. 2018;6:e885-e93.
5. Holst□Hansson A, Idvall E, Bolmsjö I, Wennick A. The narrow treatment road to survival: Everyday life perspectives of women with breast cancer from Iraq and the former Yugoslavia undergoing radiation therapy in Sweden. European journal of cancer care. 2018;27(2):e12825.
6. Al-Gburi AS, Alwan NA, Al-Tameemi EAK, Al-Dabbagh WH. Opportunistic Screening for Early Detection of Breast Cancer in Iraq. International Medical Journal. 2021;28:28-32.
7. Hussain AM, Lafta RK. Cancer Trends in Iraq 2000–2016. Oman medical journal. 2021;36:e219.
8. Yahyaa BT. Woman's Knowledge about Breast Cancer in Al-Ramadi City, Iraq. Annals of the Romanian Society for Cell Biology. 2021:4901-10.
9. Sun Y-S, Zhao Z, Yang Z-N, Xu F, Lu H-J, Zhu Z-Y, et al. Risk factors and preventions of breast cancer. International journal of biological sciences. 2017;13:1387.
10. Waks AG, Winer EP. Breast cancer treatment: a review. Jama. 2019;321:288-300.
11. Sajida Khamis A, Hala SA-W. Assessment Of Breast Cancer Early Detection Program's Activities In Primary Health Care Centers In Baghdad City. Evaluation of the effectiveness of the early detection program for breast cancer in primary health care centers in the city of Baghdad. kufa Journal for Nursing sciences. 2013;3:29-40.
12. Kang C, LeRoith D, Gallagher EJ. Diabetes, obesity, and breast cancer. Endocrinology. 2018;159:3801-12.
13. Mariotto AB, Etzioni R, Hurlbert M, Penberthy L, Mayer M. Estimation of the number of women living with metastatic breast cancer in the United States. Cancer Epidemiology and Prevention Biomarkers. 2017;26:809-15.
14. Nair N, Shet T, Parmar V, Havaldar R, Gupta S, Budrukkar A, et al. Breast cancer in a tertiary cancer center in India-An audit, with outcome analysis. Indian journal of cancer. 2018;55:16.
15. Baran P, Pacile S, Nesterets YI, Mayo S, Dullin C, Dreossi D, et al. Optimization of propagation-based x-ray phase-contrast tomography for breast cancer imaging. Physics in Medicine & Biology. 2017;62:2315.
16. Swainston J, Chapman B, Grunfeld EA, Derakshan N. COVID-19 lockdown and its adverse impact on psychological health in breast cancer. Frontiers in psychology. 2020;11:2033.
17. Soran A, Gimbel M, Diego E. Breast cancer diagnosis, treatment and follow-up during COVID-19 pandemic. European journal of breast health. 2020;16:86.