

# Breast Symptoms Among Women Attendant's to Early Detection Breast Clinic

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## Abstract

**Background:** Breast cancer is the most commonly diagnosed cancer in women. Breast cancer early detection is a program that combines early diagnosis for symptomatic patients with opportunistic breast clinical examination screening. This study was conducted to demonstrate the drawback of opportunistic screening.

**Methodology:** A group of 200 symptomatic patients were consulted at the women's health center at AL-Elweiya maternity teaching hospital in Baghdad between January 2021 and June 2021. Breast physical exam, imaging tests (ultrasound and mammographic examination), and fine-needle aspiration cytology analysis (FNAC) were done. All cases are categorized according to ACR/BI-RADS atlas lexicon.

**Results:** Only 18 percent of those who went to the breast clinics with the purpose of getting screened showed up. Of those who had clinical breast examinations, 94(35.7%) and 169(64.3%) were subjected either to mammograms, ultrasound, or mammograms. Thirty-five (94.8%) patients were under BI-RADS 1 and 2 (no malignant), while BI-RADS 4 (suspicious of malignancy) was noticed in 21 (18.7%) patients using mammograms and 91 (81.3%) using U/S. BI-RADS 5 was noticed in 1 (100%) using a mammogram.

**Conclusion:** This study showed that opportunistic screening is essential in breast cancer screening.

**Keywords:** Breast cancer, breast symptom, early detection, screening, BI-RADS.

## Introduction

Breast cancer is the most significant and frequent cancer in women across the world, and the leading cause of cancer-related fatalities in developing countries<sup>(1)</sup>. It is the most often diagnosed cancer in Iraqi women, accounting for nearly a third of all female cancer cases and the country's primary cause of mortality from malignant neoplasms<sup>(2)</sup>. Iraqi research shows that breast cancer in younger women is more advanced stages and has a higher incidence of aggressive tumors<sup>(3,4)</sup>.

Early detection measures are the best strategy to find breast cancer early and improve survival chances. Symptomatic patients presenting with symptoms such as breast discomfort, mass, and nipple discharge, as well as unsystematic opportunistic breast clinical examination screening, are included in Iraq's breast cancer, early detection model. Mammograms "for women over 40 years old of age" or ultrasounds ""for women younger than 40 years old of age". These services are offered at the women's request or the suggestion of her physician. Tissue samples are taken from patients with positive radiological evaluation

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“mammography and/or ultrasound” according to the breast early detection clinics’ triple assessment protocol<sup>(4)</sup>.

Since 2000, the Iraqi Ministry of Health has worked with the World Health Organization to establish a nationwide program for the early identification of breast cancer. Because of a lack of infrastructure, the organized systemic screening program for the international community has yet to be implemented<sup>(5)</sup>.

Therefore, to overcome those obstacles a fellowship for cancer screening was established. This work was carried out to show the drawback of opportunistic screening<sup>(6)</sup>.

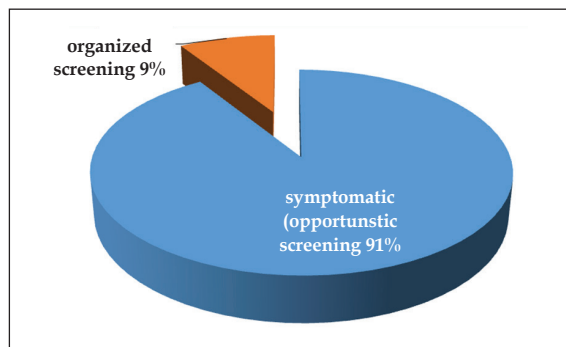
**Patients and Method**

A group of 200 symptomatic patients were consulted at the women’s health center at AL-Elweiya maternity teaching hospital in Baghdad between January 2021 and June 2021. Breast physical exam, imaging tests, “ultrasound and mammographic examination,” followed by fine-needle aspiration cytology analysis (FNAC) were done. According to the “ACR/BI-RADS atlas lexicon, all cases are categorized into incomplete (category 0) and complete assessment (categories 1, 2, 3, 4, 5, 6)”<sup>5,7</sup>.

FNAC was done for those with BI-RADS >=3. The impact of the independent variable (symptomatic) on the malignancy of the lesions was measured. Statistical analysis was performed, and different variables were analyzed.

**Results**

“Figure (1) shows patients referred to the clinic and the reasons for attending opportunistic screening among the studied sample”.



**Figure(1):** Distribution of the sample according to the breast clinic’s reasons for attendance.

A total of the 182 (91%) women were subjected to opportunistic screening, while only 18(9%) women underwent organized screening. Of those who had clinical breast examinations, 94(35.7%) and 169(64.3%) were subjected either to mammograms and ultrasound and mammograms respectively.

**Table (1): BI-RADS, categories into mammography and ultrasonography**

BI-RADS	Mammography		Ultrasound	
	NO.	%	NO.	%
0	17	100	0	0.0
1	30	76.9	9	23.1
2	5	17.9	23	82.1
3	20	30.3	46	69.7
4	21	18.7	91	81.3
5	1	100	0	0.0
<b>Total</b>	<b>94</b>	<b>35.7</b>	<b>169</b>	<b>64.3</b>

$\chi^2=79.98$ , P value = 0

Thirty-five (94.8%) patients were under BI-RADS 1 and 2 (no malignant), while BI-RADS 4 (suspicious of malignancy) was noticed in 21 (18.7%) patients using mammograms and 91 (81.3%) using U/S. BI-RADS 5 was noticed in 1 (100%) using a mammogram.

**Table (2): Breast symptoms in benign and malignant lesions**

Breast Symptoms	Breast changes			
	Benign		Malignant	
	No.	%	No.	%
Lump	50	66.7	25	33.3
Pain	28	87.5	4	12.5
Nipple discharge	8	88.9	1	11.11
<b>Total</b>	<b>86</b>	<b>74.1</b>	<b>30</b>	<b>25.9</b>

$\chi^2=6.1847$ , df=2, p <0.05

The most prominent symptom was lumps, and the least was nipple discharge. There was a significant difference in the type of lesion (benign and malignant) with symptoms ( $\chi^2=6.1847$ , df =2, p < 0.05)

**Discussion**

Breast cancer mortality has been reduced due to early diagnosis of the illness through coordinated screening of women. The gathering of data on symptoms at the screening visit is critical to the success of breast cancer screening programs<sup>7</sup>. The lower rate (9%) of women attending screening is in the line reported in

Iraq (8.4%)<sup>4</sup>. The low observed rate (9%) is similar to that reported in Jordan (8.6%)<sup>8</sup>. The observed figure in this study (9%) is lower than that reported in Saudi Arabia (37.8%)<sup>9</sup>. This disparity might be explained by the fact that the health system in Iraq is focusing on the treatment and not the preventive focus. Conflict in Iraq (wars, civil wars, and widespread violence) might explain the lack of focus on treatment. Panic developed at the beginning of the covid-19 pandemic interfered with preventive service, so the authorities closed the screening clinic of breast cancer, which led to disturbance of the screening program.

The sensitivity of mammography is reduced in dense breasts<sup>11</sup>. As a result, the advantage of undergoing breast ultrasonography outweighs the risk of BI-RADS overestimation or underestimation<sup>12</sup>. Mammography identified 58.5 percent of BI-RADS 1, 2, and 3 scores, whereas 23.4 percent of BI-RADS 4 and 5 scores. This contradicts the findings of research that compared the two modalities<sup>13</sup>. Ultrasonography had a better cancer detection rate and was more helpful than mammography. In women with dense breast tissue, mammography may have specific difficulties identifying lesions. When mammography showed BI-RADS=0, ultrasonography identified abnormalities. According to specific research, with BI-RADS below 4 may benefit more from extra ultrasound study. However, those with BI-RADS 4 and above who already had a high risk of cancer, ultrasound might not gain any additional information<sup>14</sup>. In this study of 75 cases, 25(33.3%) were malignant, and 50 (66.7%) were benign. Other studies showed 50 breast masses on FNAC and found that 7 cases (14%) were malignant and 43 (86%) were benign<sup>15</sup>. Similarity studied 757 cases on FNAC and found that most cases were benign (50.2%), followed by malignant cases (31.4%)<sup>16</sup>. The percentage of benign cases in our study was closer to that in Bangladesh<sup>15</sup>. A difference might relate to sample size and decreased awareness of women about the risk of the breast lump and for seeking medical consultation from breast cancer screening clinics. Nipple discharge develops in about (11.1%) of malignant women. It is consistent with that reported in China<sup>17</sup>. Benign causes of nipple discharge were the most detected (88.9%). Another study<sup>18</sup> showed cytological examination of nipple discharge (54.79%) were benign cases and (1.37%) were malignant, so that the nipple discharge is a poor indicator of an underlying malignancy.

## Conclusions

The introduction of an individual opportunistic breast cancer screening program played a significant role in increasing public and healthcare provider awareness, practice, and attitudes toward screening among asymptomatic women, which is considered the first step in establishing population-based screening.

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