



## Breast diseases patterns among women attending early detection breast diseases clinic in Diwanya City/ Iraq during 2019

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### Abstract

**Background and Objectives:** Breast diseases in women, whether benign or malignant, are very commonly encountered. The pattern of breast diseases varies within countries. The aim of this study was to identify the patterns of breast diseases and their association with different variables in women attending Early detection Breast Diseases clinic in Diwanya City/Iraq.

**Material and Methods:** A cross-sectional study conducted at Early detection Breast Diseases clinic in Diwanya City/Iraq during 2019. All women of all age groups that attending Early detection Breast Diseases clinic in Diwanya City/Iraq were included in this study. The women were classified according to their final diagnosis into 3 categories: normal, benign and malignant breast disease.

**Results:** Benign breast diseases diagnosed among women was (13.6%) while malignant breast diseases comprised (0.61%) and the rest of women (85.7%) was normal. The most common presentation of complaining women was mastalgia with mass (31.1%), mastalgia (39.6%), and mass alone (29.2%). Fibro-adenoma was the commonest benign condition of benign breast diseases (48.0%).

**Conclusions:** Benign conditions are the most common diagnosis affecting mainly younger women. Breast cancer though diagnosed less frequently, which indicate the need for more studies and social education, yet the incidence rate of the women to the center is encouraging.

**Keywords:** breast, cancer, clinic, incidence, women, diagnosis

### Introduction

In Iraq the commonest form recorded for female malignancy was breast cancer and the leading cancer site in general among the Iraqi population is the breast <sup>[1]</sup>.

According to the World Health Organization, screening and early detection, and when combined with appropriate therapy, offer the most immediate chance for a down staging of breast cancer and reduction in mortality <sup>[2]</sup>. So, the Iraqi ministry of health start the national programme for early detection of breast cancer, which was initiated in 2001 in an attempt to down-stage this disease at the time of presentation. Because a wide range of variety of patients attending the breast clinic regarding the purpose visit, early detection or real clinical complaint and because Breast diseases are a heterogeneous group of diseases ranging from self-limiting inflammatory

diseases to life threatening invasive cancers <sup>[3]</sup>. This report try to review the pattern and clinicopathological presentation in 2426 female Iraqi patients who were attended the Centre for Early Detection of Breast Tumours in Diwanya teaching hospital during 2019. benign breast diseases is The greatest common cause of breast problems in females and it is 10 times more common than breast cancer in the western world <sup>[4]</sup>. and they account internationally approximately for 90% of the breast related clinical presentations <sup>[5]</sup>. Furthermore, the most benign lesions recorded in developing countries were fibroadenoma, fibrocystic change and breast abscess <sup>[6]</sup>.

### Materials and Methods

The present study is a cross-sectional study covered a total of 2426 female patients who visited the center of Early

Detection of Breast Tumours in the Diwanya teaching hospital in Diwanya/Iraq governorate during the 2019, this clinic is the second public center in Diwanya city (other one present in maternity general hospital) providing services free of charge for all women referred from different health facilities of urban or rural areas. These women presenting either for routine checking of the status of their breast as part of social activities of early detection of breast diseases or presented with palpable breast lumps or referred from consultation or private clinic. Patients were clinically interviewed and examined either by clinical breast examination and reassurance or using a triple assessment technique, i.e. clinical breast examination, mammography and/or ultrasonography, and fine needle aspiration cytology (FNAC) if needed. Data routinely recorded on the patient's file sheet questionnaire by the examining physician which is the source of the data of this study. The women recruited in this study were classified, according to their final diagnosis, into three categories: firstly; normal findings, secondly; benign breast diseases Thirdly; malignant breast disease.

### Results

2426 women involved in this study; the average number of visitors was 202 per month with higher percentage recorded (11%) was in July. The age range was 13 to 71 years, with large percent (29.8%) noted in the age group (30 -39) years Table 1. The largest number of women (86.7 %) attending the center was normal and symptom free came as routine visitors as part of early detection program, while the rest were complaining. The number of women recorded as 1<sup>st</sup> visit was more than fourfold (2034) than women recorded with

frequent visits (392). From the recorded cases (13.6 %) were benign diseases of different cause (68.2 % of symptomatic cases) and (15) cases were breast cancer which was (0.62 %) of total examined women and (3.26%) of symptomatic women, and the rest of women (85.7%) was normal. The most common presentation of complaining women was mastalgia with mass (31.1%), mastalgia (39.6%), and mass alone (29.2%). Fibro-adenoma was the commonest benign condition of benign breast diseases (48.0%). these diseases weather benign or malignant and their subdivisions are shown in Table 2. The results of the use of mammogram, ultra sound and FNA cytology in addition to clinical examination and history in the assessment of the patients are shown in Table 3 which reveal same accuracy of the three tests in diagnosis of breast cancer cases that tested.

**Table 1:** number and percentage of cases distributed in regard to age groups

	0-19	20-29	30-39	40-49	50-59	60-69	70-
No. of cases	161	653	721	609	245	33	4
%	6.70%	27.10%	29.80%	26.10%	2.70%	1.40%	0.20%

**Table 2:** Benign and malignant diseases.

diseases		No. of patients	%****	
benign	Tumours*	159	34.5%	
	ANDI**	75	16.3%	
	Miscellaneous ***	80	17.4%	
malignant	Stage 2	8	1.7%	3.26%
	Stage 3	6	1.3%	
	Stage 4	1	0.21%	

\*tumors include (fibroadenoma, lipoma, papillo). \*\*ANDI (Aberration in the Normal Development and Involution) \*\*\*Miscellaneous (Mastitis, Breast abscess, Ductectasia) \*\*\*\*this percentage in regards to complaining patients not to the total number of visitors.

**Table 3:** The results of mammo, ultrasound and FNA cytology in diagnosing benign and malignant diseases.

		No. of patients	%
Mammogram	Total	586	
	normal	482	82%
	benign	88	15%
	suspected	1	0.17%
	malignant	15	2.55%
Ultrasound	Total	895	
	normal	645	72%
	benign	234	26.2%
	suspected	1	0.11%
	malignant	15	1.67%
FNA	Total	360	
	benign	344	95.5%
	suspected	1	0.2%
	malignant	15	4.1%

**Discussion**

The majority of symptomatic cases were benign diseases (68.2 %) and only (3.26 %) were malignant, these results are different from other studies in Iraq or region [7, 8, 9]. These studies show nearly same percentage of benign diseases but higher percentage of malignant diseases, these differences may be attributed to two causes first there is other breast diseases clinic which present in the maternity hospital and the second cause that many cases of breast diseases are referred directly from private clinic, so not all breast diseases are

recorded in our center. Large percent (29.8%) noted in the age group (30 -39) years compare with other Iraqi study in which the average age was 51 years [10], this may reflect the development in social education regarding screening of breast diseases in younger age group. Most women that participating in the program was by self-referral method (81 %) this is slightly higher than other Iraqi study which was (77.45 %) [11]. The similarity in accuracy of the three tests (ultrasound, mammogram and FNA) in breast cancer diagnosis is on contrary with many other studies [13, 12, 14] and may reflect a shortage in the information that recorded. The results of mode of presentation of breast diseases (mastalgia with mass, mastalgia alone, and mass alone) was similar to other Iraqi study [7] and close to the results of study conducted in Tanzania [6]. The most common benign breast disease was fibroadenoma which is similar to other studies conducted in Iraq [7] and other countries [9, 15] but with different proportions.

**Conclusion**

Encouraging total number of women visiting the center of Early Detection of Breast Tumours in the Diwanya teaching hospital specially the average age group was young and middle age group may indicate the development of social awareness of women in regard of the screening program but marked reduction of number of subsequent visit points to the need of more efforts in this direction. Absence of civil society organization role in referring women to our center need special attention and recommendation. The incidence rate of benign breast lesions in women with breast mass is similar to that seen in studies in the country and region, on contrary to much less malignant diseases recorded which need further studies.

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