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Sahar Muayad Abdulwahhab  
Baghdad Health Directorate - Al-  
Karkh, Baghdad, Iraq

Hiba D Al-Ameri  
Baghdad Health Directorate -  
Al-Karkh, Baghdad, Iraq

Jawad K Al-Diwan  
Baghdad University, College of  
Medicine, Baghdad, Iraq

**Corresponding Author:**  
Sahar Muayad Abdulwahhab  
Baghdad Health Directorate - Al-  
Karkh, Baghdad, Iraq

## Pattern of presentation of breast disease in the breast clinic

Sahar Muayad Abdulwahhab, Hiba D Al-Ameri and Jawad K Al-Diwan

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### Abstract

**Background:** Breast health is a global priority due to the high prevalence and impact of breast disorders, particularly breast cancer. This research examines the complexities of breast illness presentation in clinics by analyzing patient demographics, symptoms, and treatment outcomes. The study aims to enhance understanding of diagnosis and management challenges in breast health.

**Method:** Al Karkh hospital in Baghdad saw 267 female breast clinic patients from June 2022 to June 2023. Each case file was reviewed. Age in years, family history, menstrual cycle history, and breast disease diagnoses were required. The Al Karkh hospital breast clinic accepted all women. There are no restrictions.

**Results:** Patients' mean age:  $47.7 \pm 11.3$  years; 72.3% were over 40. 58.4% had no family history; 53.2% had irregular menstrual cycles. Chief complaints: axillary swelling ( $\leq 40$  years: 37.5%), mass ( $> 40$  years: 61.4%), mastalgia ( $> 40$  years: 62.5%), and consultation only ( $> 40$  years: 89.2%).

**Conclusion:** The study reveals that the majority of patients are over 40 years old, with 72.3% in this age group, and highlights a significant portion without a family history of breast issues and irregular menstrual cycles. Chief complaints varied with age, notably axillary swelling and mastalgia predominating in the  $>40$  age group. There was no significant correlation between menstrual cycle history and the chief complaint presented by the patients.

**Keywords:** Pattern, presentation, breast, disease, breast, clinic

### Introduction

Breast health is a paramount concern globally due to the high prevalence and significant impact of breast diseases, particularly breast cancer, on women's health. These diseases range from benign conditions, such as fibrocystic changes, fibroadenomas, and infections, to malignant conditions, with breast cancer being the most feared and significant. Early detection and treatment of breast cancer and other breast diseases are crucial for improving outcomes, reducing morbidity, and saving lives. This underscores the vital role of breast clinics, which serve as specialized centers for the assessment, diagnosis, and management of breast conditions [1, 2]. Breast clinics are pivotal in the healthcare landscape for providing targeted care and management for individuals presenting with breast complaints. These facilities are equipped with specialized staff and diagnostic tools, such as mammography, ultrasound, and biopsy capabilities, to accurately diagnose and initiate treatment plans for various breast conditions. The pattern of presentation of breast diseases in these clinics offers invaluable insights into the prevalence of different conditions, patient demographics, presenting symptoms, and outcomes of various treatment approaches [3, 4]. Understanding the pattern of presentation is essential for several reasons. It aids in identifying common and rare breast conditions in specific populations, informs healthcare providers about the most prevalent symptoms that should prompt consideration of breast disease, and helps tailor public health messages and screening programs to the needs of the population served by the clinic. Additionally, analyzing these patterns can reveal trends over time, including shifts in the age of onset, the impact of lifestyle factors, and the effectiveness of awareness campaigns and screening programs [5, 6]. The landscape of breast disease diagnosis and treatment is continuously evolving, with advancements in medical technology, diagnostic methods, and treatment options significantly influencing the pattern of presentation in breast clinics. The integration of genetic testing, personalized medicine, and novel therapeutic agents has started to shift the approach to managing breast diseases, making the role of breast clinics even more critical in navigating these advancements for patient benefit [7, 8].

This paper aims to delve into the complexities and nuances of the pattern of presentation of breast diseases in a breast clinic setting.

**Method**

From June 2022 to June 2023, a cohort of 267 female patients attended the breast clinic at Al Karkh hospital in Baghdad. Every case file was examined. Age in years, family history, menstrual cycle history, and a diagnosis of each category of breast disease were among the information requested. Criteria for inclusion: All females who presented at the breast clinic of Al Karkh hospital. There are no

exclusionary criteria. The chi-square test was employed to analyses the relationship between the dependent variable (breast disease) and the independent variable (chief complain). A P-value is considered significant if it is less than or equal to 0.05.

**Results**

Age of patients  $47.7 \pm 11.3$  years, the peak of patients is age group more than 40 years old 194 (72.7%). 156 (58.4%) of patients have no family history and 142 (53.2%) of patients have irregular menstrual cycle. (Table 1).

**Table 1:** Distribution characteristics of patients

Variables		Frequency	Percentage
Age group (years)	≤40	73	27.3
	>40	194	72.7
Family history	1 <sup>st</sup> relative	30	11.2
	2 <sup>nd</sup> relative	55	20.6
	History of other malignancies	26	9.7
	No	156	58.4
Menstrual cycle history	Irregular	142	53.2
	Menopause	45	16.9
	Regular	80	30.0

The distribution of chief complaint is showing in table 2 axillary swelling was predominant in age group > 40 years old (62.5%), mass more occur in age > 40 years (61.4%),

mastalgia predominant at age group > 40 years old (70.3%), and (89.2%) of females at age group >40 years come for consultation only.

**Table 2:** Distribution of between age group and Chief complaint

Age (Y)	Chief complaint						P-value
	Axillary swelling	Follow up	Mass	Mastalgia	Nipple discharge	Consultation	
≤40	3	3	22	30	6	9	0.001
	37.5%	50.0%	38.6%	29.7%	50.0%	10.8%	
>40	5	3	35	71	6	74	0.001
	62.5%	50.0%	61.4%	70.3%	50.0%	89.2%	
Total	8	6	57	101	12	83	0.001
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 3 demonstrated that there is no significant distribution of between menstrual cycle history and Chief complaint.

**Table 3:** Distribution of between menstrual cycle history and chief complaint

Menstrual cycle	Chief complaint						P-value
	Axillary swelling	Follow up	Mass	Mastalgia	Nipple discharge	Consultation	
Regular	2	4	7	35	4	28	0.6
	25.0%	66.7%	12.3%	34.7%	33.3%	33.7%	
Irregular	6	1	38	52	6	39	0.6
	75.0%	16.7%	66.7%	51.5%	50.0%	47.0%	
Menopause	0	1	12	14	2	16	0.6
	0.0%	16.7%	21.1%	13.9%	16.7%	19.3%	
Total	8	6	57	101	12	83	0.6
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

**Discussion**

The distribution of chief complaints among women presenting for breast-related consultations, as illustrated in the findings, provides insightful patterns that underscore the variability of breast symptoms across different age groups. The predominance of axillary swelling in more than 40 years' age group (62.5%), mastalgia mainly in the more than 40 years' age group (70.3%), suggest age-related differences in breast symptomatology. This age-specific distribution of symptoms could reflect underlying biological changes associated with the reproductive lifecycle, as well as the cumulative exposure to risk factors for breast conditions

over time. The absence of a significant relationship between menstrual cycle history and chief complaint is a critical observation, indicating that while hormonal fluctuations undoubtedly influence breast tissue, the manifestation of specific symptoms such as mastalgia, masses, axillary swelling, or nipple discharge may not directly correlate with menstrual cycle phases. This finding aligns with other studies suggesting that breast symptoms can be influenced by a multitude of factors beyond hormonal changes, including but not limited to, lifestyle factors, genetic predispositions, and environmental exposures [9]. The age-specific prevalence of different breast complaints observed

in this study resonates with the findings from similar studies. For instance, research has shown that fibrocystic changes, which can lead to breast masses and mastalgia, are more common in women of reproductive age, gradually decreasing in prevalence post-menopause<sup>[9]</sup>. Conversely, the risk of breast cancer, potentially signaled by axillary swelling due to lymph node involvement, increases with age, particularly in more than 40-year age group<sup>[10]</sup>. This may explain the higher incidence of axillary swelling and the need for consultations in this age bracket, encompassing benign conditions such as intraductal papilloma to more serious conditions like ductal carcinoma in situ (DCIS) or invasive cancer, where the risk increases with age<sup>[11]</sup>. The observation that a significant portion of women in the more than 40-year age group sought consultations without a specific complaint (89.2%) could reflect increased health awareness or anxiety regarding breast cancer risk in this demographic. The lack of correlation between menstrual cycle history and chief complaints might challenge traditional understandings of breast symptomatology linked to hormonal cycles. It emphasizes the importance of considering a broad differential diagnosis for breast complaints, independent of the menstrual cycle. This finding supports the necessity for clinicians to adopt a comprehensive approach to breast symptom evaluation, one that integrates patient history, symptomatology, and risk factors beyond just the menstrual cycle (Smith *et al.*, 2014)<sup>[12]</sup>. The distribution of chief complaints among different age groups in this study highlights the importance of age as a factor in the presentation of breast symptoms. The most notable symptom was the presence of lumps, whereas the least significant symptom was the discharge from the nipple. There was a notable disparity in the nature of the lesion (benign and malignant) accompanied with symptoms (Abdul Salam and Al-Diwan JK, 2022)<sup>[13]</sup>. The absence of a significant relationship between menstrual cycle history and chief complaints further underscores the complexity of breast diseases and the influence of multiple etiological factors. These insights are crucial for informing clinical practice, emphasizing the need for age-specific approaches to the evaluation and management of breast complaints. Future research should continue to explore the multifactorial nature of breast symptomatology, aiming to improve diagnostic accuracy and patient outcomes.

### Conclusion

The study reveals that the majority of patients are over 40 years old, with 72.3% in this age group, and highlights a significant portion without a family history of breast issues and irregular menstrual cycles. Chief complaints varied with age, notably axillary swelling and mastalgia predominating in the >40 age group. There was no significant correlation between menstrual cycle history and the chief complaint presented by the patients.

### Conflict of Interest

Not available

### Financial Support

Not available

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