

# Determinants of Further Investigation for Patients with Mastalgia, Iraq, 2022: A Descriptive Study

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## Abstract:-

**Background:** Mastalgia is a common condition affecting more than two thirds of women in their lifetime. It is a dull, aching pain that some describe it as heaviness, tightness, discomfort, or burning sensation in the breast tissue. Many females with mastalgia reported a negative impact on their life, especially with sexual activity (40%), physical activity (30%), work and social activities (10%).

**Materials and methods:** A total of 100 women aged 18 – 50 years were included in the study. Case files were reviewed for the period from the 1st of September till 31st of December, 2022. The requested data were obtained from breast health clinic at Al Elwiyah Obstetric – Gynecological teaching hospital, Baghdad- Iraq.

**Results:** Half of studied females aged 30 – 45 years (50%). Females with history of breast disease were twelve (12%), and breast cancer were 25 (25%). Noncyclic, unilateral (left breast), burning in nature, without radiation nor changes, chronic, and attending the clinic by herself were 64 (64%), 40 (40%), 57 (57%), 46 (46%), 78 (78%), 59 (59%), and 78 (78%) respectively. Those needing ultrasound after physical exam were 78 (78%). About 54 (54%) of women needed mammogram after breast ultrasound. Those with breast mass undergo FNA after mammogram were 21 (21%). Only 8 (8%) of women had tru-cut for further evaluation.

**Conclusions:** Breast pain is a common complain among Iraqi women affecting different age groups. Pain characteristics are the determinants for further investigation and treatment.

## I. INTRODUCTION

Mastalgia or mastodynia is a common condition affecting more than two thirds of women in their lifetime [1]. It is a dull, aching pain that some describe it as heaviness, tightness, discomfort, or burning sensation in the breast tissue. The pain may be constant or occasional, affecting men and much more in women [2]. It can be cyclic, noncyclic, unilateral, and bilateral. Mastalgia is considered to be the most common breast complaint with which a female presents in her reproductive age. About 70 % of women suffer from this condition during their lifetime, and only 30 % seek medical help. The peak incidence age for cyclic mastalgia is 20 to 40 years. The incidence decreases with advancing age and early pregnancy. It is less commonly found in postmenopausal women [3].

Many females with mastalgia reported a negative impact on their life, especially with sexual activity (40% females), physical activity (30% females), work and social activities (10% females) [4].

Identifying the onset, nature, duration of pain, as well as aggravating and relieving factors, and association with a mass or inflammation can help in differentiating the etiology of mastalgia [5]. Full assessment is required for patients with mastalgia, including complete personal and family history, general and breast examinations, hormonal assessment, and imaging techniques. Imaging modalities were used to evaluate any abnormal physical exam findings like mammography and breast ultrasound. The primary aim of such testing is to rule out any serious pathology (breast cancer) underlying a suspicious finding [6].

## II. AIM

Identify those who need further investigations to exclude malignancy.

**III. MATERIALS AND METHODS**

A total of 100 women aged 18 – 50 years were included in the study. Case files were reviewed for the period from the 1st of September till 31st of December, 2022. The requested data were obtained from breast health clinic at Al Elwiyah Obstetric – Gynecological teaching hospital, Baghdad- Iraq.

**IV. RESULTS**

Table (1) shows the characteristics of the females attending breast clinic. Half of them aged 30 – 45 years (50%). Most of women were housewives 76 (76%), married 72 (72%), with low educational level 75 (75%). The majority had no chronic disease 89 (89%), non-smokers 71 (71%), and without breast mass 66 (66%).

Table 1: The characteristics of the study sample:

Variables	Freq.	%	
Age	< 30 years	18	18
	30 – 45 years	50	50
	> 45 years	32	32
Occupation	Student	6	6
	Housewife	76	76
	Employee	18	18
Educational level	≤ Secondary	75	75
	> Secondary	25	25
Marital status	Married	72	72
	Single, widow, divorced	28	28
Medical history	Hypertension	4	4
	Diabetes	5	5
	Others	2	2
	No	89	89
Smoking	Yes	8	8
	No	71	71
	Passive	21	21
Mass	Yes	34	34
	No	66	66
Total		100	100

Current surgical, drug, and breast histories are seen in figure (1). Those having surgical history were 29 (29%), drug history 9 (9%), breast disease 12 (12%), and breast cancer 25 (25%).

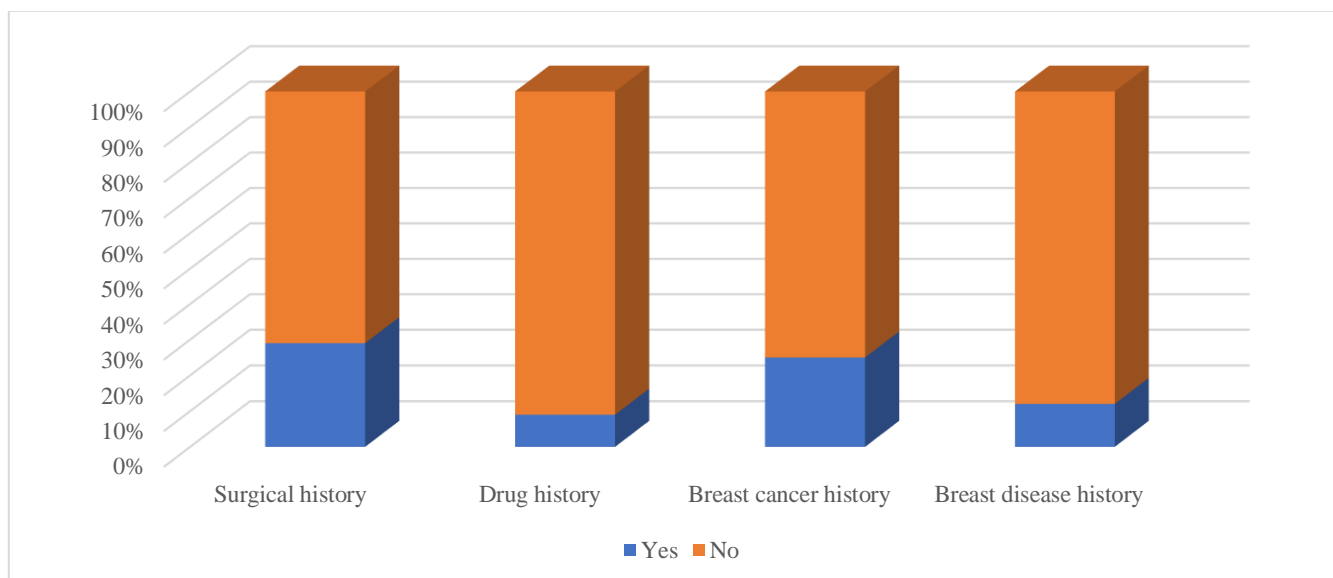


Fig. 1: Current history of the participants

Pain characteristics of studied women is presented in table (2). Noncyclic, unilateral (left breast), burning in nature, without radiation nor changes, chronic, and attending the

clinic by herself were 64 (64%), 40 (40%), 57 (57%), 46 (46%), 78 (78%), 59 (59%), and 78 (78%) respectively.

Table 2: Pain characteristics of studied women:

	Characteristics	Freq.	%
Type	Cyclic	36	36
	Noncyclic	64	64
Site	Right	33	33
	Left	40	40
	Bilateral	27	27
Nature	Burning	57	57
	Heavy	2	2
	Sharp	11	11
	Mixed	30	30
Radiation	No radiation	46	46
	To axilla	36	36
	To arm	3	3
	To axilla and arm	15	15
Association	Nipple discharge	11	11
	Skin changes	7	7
	Nipple retraction	4	4
	No changes	78	78
Duration	Days	1	1
	Weeks	34	34
	Months	59	59
	Years	6	6
Referral	PHCCs	17	17
	Private doctor	5	5
	Herself	78	78

Investigations used for assessing mastalgia are seen in figure (2). Those who needed ultrasound after physical exam were 78 (78%). About 54 (54%) of women needed

mammogram after breast ultrasound. Those with breast mass undergo FNA after mammogram were 21 (21%). Only 8 (8%) of women had tru-cut for further evaluation.

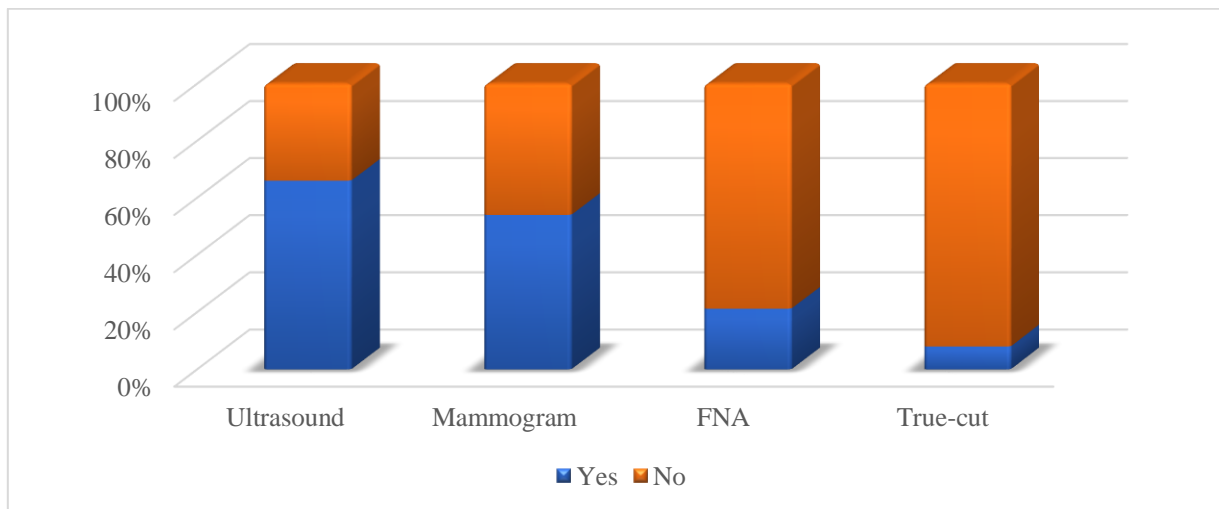


Fig. 2: Investigations used for assessing mastalgia

**V. DISCUSSION**

Breast pain, or mastalgia, is one of the most common breast disorders in women. Concerns related to the association of breast pain and the risk of breast cancer often make patients seek medical evaluation. The clinical evaluation of mastalgia needs a careful history and physical examination, appropriate imaging studies based on the type and location of the pain, clinical findings, and patient’s age. Several non-pharmacologic therapies can be recommended as first-line therapies while reserving pharmacologic treatments

for more severe symptoms and complaints. Reassurance can also be an important component in the management of mastalgia, while surgical interventions have a much more limited role [7].

Figure (1) shows known risk factors for breast pain including reproductive history, family history, personal breast cancer, and a prior precancerous breast lesion or disease. The main factors that influence risks include being a woman and getting older [8].

Identifying the onset, quality, nature, and pain duration, as well as presence or absence of a mass or inflammation, can aid in differentiating the etiology of breast pain. Assessing pain severity and documenting the change in severity over time will guide treatment recommendations with both non-pharmacologic and pharmacologic treatment options<sup>[5]</sup>.

Imaging modalities mostly used to evaluate any abnormal physical exam findings are shown in figure (2) that include breast ultrasound and mammography. The aim of such testing is to rule out any serious pathology (breast cancer) underlying a suspicious finding. Young female with cyclic mastalgia, bilateral and non-focal, without family history of breast cancer, and with a normal previous breast exam does not require further investigation with imaging. While a female with non-cyclic focal mastalgia and a strong suspicion of underlying pathology is a positive candidate for further investigation with an imaging modality<sup>[3]</sup>.

Fine-needle aspiration (FNA) biopsy is a safe and accurate method for diagnosing breast lesions. It has become a critical component in the investigation of palpable breast masses, a cost-effective technique even when followed by an excisional or frozen section biopsy for confirmation<sup>[9]</sup>.

Core biopsy or tru cut needle biopsy is not widely used because of its complications, interpretation, and time-consuming results. The use of core biopsy (CB) is being increasingly advertised but its procedure is more cumbersome, expensive and time consuming as compared to FNA procedure<sup>[10,11]</sup>. Despite that, it supplies enough tissue for pathologists to establish a correct histological assessments. That is why it is the first preferred procedure for the diagnosis of breast lesions prior to surgery as it is less invasive than excisional biopsy<sup>[12]</sup>.

## VI. CONCLUSIONS

Breast pain is a common complain among Iraqi women affecting different age groups. Pain characteristics are the determinants for further investigation and treatment.

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