

EVALUATION OF BREAST PAIN (MASTALGIA) AMONG WOMEN ATTENDING AL-YARMOOK TEACHING HOSPITAL

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ABSTRACT

Introduction: Both men and women sometimes experience breast discomfort. While it is often minor and self-limited, 15% of afflicted women need medical attention. It's essential to evaluate breast pain to ascertain if it's brought on by pathological processes like breast cancer or typically physiological changes connected to hormone fluctuations. **Objectives:** The goal of the research is to determine if breast discomfort is brought on by hormonal or pathological changes when considered in conjunction with the patients' risk factors. **Methods:** 250 Iraqi women who were hospitalised to Al Yarmouk Teaching Hospital participated in a prospective research survey. The women were diagnosed using a triple clinical evaluation, cytology analysis, and imaging examination. Breast discomfort was a common Early Detection Clinic for Cancer complaint. Their demographic data, which was relevant to the present study, was gathered from the hospital's statistics unit's medical records. **Results:** 250 individuals were included in the trial, and their average age was 37.11. 12.58 was the typical first menstrual period age, while 46.15 was the typical menopausal age. Ninety-nine percent of the 250 patients—19 out of them post-menopausal—who reported with mastalgia had benign tumours, with the acceptance that one (0.4%) of them was malignant. This was based on the demographics and reproductive information of all participants. In addition, 150 (60%) cases were free of any illnesses, with 8 (3.2%) cases having intraductal papillomas, 25 (10%) having fibroadenomas, 12 (4.8%) having simple cysts, 12 (4.8%) having ductasia, 9 (3.6%) having fat necrosis, and 1 (0.4%) having invasive ductal carcinoma as the malignant diagnosis (normal). **Conclusion:** In this research, it was discovered that among the majority of women who experience breast pain as a significant complaint and as a cause to visit the clinic, there is a connection between breast discomfort and breast tumour. It was determined that benign tumours are prevalent in the majority of people with breast discomfort.

KEYWORDS: Mastalgia, Breast Tumor, Cancer, Pain.

INTRODUCTION

Women often have breast discomfort, and males do too on occasion. Around 15% of afflicted women need therapy, despite the fact that it is often moderate and self-limited. Assessment of breast pain is crucial to determining if the pain is brought on by pathological processes like breast cancer or by physiological changes connected to hormone fluctuations.^[1,2] Because of the fear of developing cancer, it significantly impacts women's everyday lives and generates severe anxiety. Using modern research techniques, we aim to rule out a cancer diagnosis in individuals with symptomatic breast

discomfort. The literature has accounted for a number of elements that pertain to the genesis of mastalgia.^[3] The top five are: ductal ectasia, mastitis, large breast size, changes in food and lifestyle, HRT, and large breast size. Moreover, it has been blamed for causing premenstrual breast discomfort to cause more water and salt retention.^[4] Changes in the key hormonal variables progesterone and oestrogen are highlighted in specifically. There are publications that claim a reduction in symptoms with a reduction in caffeine in the diet, despite the fact that it is stated that a high caffeine consumption is linked to breast discomfort and that the

debates are contentiou.^[5] Characterizing breast pain in individuals with breast discomfort is crucial for diagnosis, therapy, and follow-u.^[6] Pain that radiates from the breast may be caused by spinal or paraspinal issues as well as acute pain that originates in the chest wall, with the musculoskeletal system coming in first. It may also be linked to conditions of the heart, oesophagus, pulmonary system, and bile duct.^[7] When breast discomfort is assumed to be benign in origin, psychological support techniques, notably placebo or suggestion, are prioritised as first lines of defence; nevertheless, there are other treatments with a track record of success.^[8] Individuals who arrive with mastalgia must have a thorough evaluation that includes a detailed review of personal and family history, a breast examination, a general physical examination, and any necessary tests, such as breast imaging and some hormonal evaluations.^[8] Depending on how severe and how long-lasting the disease is, many therapy approaches have been attempted for the efficient treatment of breast discomfort. The two most crucial first steps are reassuring people and trying to rule out cancer. Analgesics, which have been shown to be useful in treating mild to moderate kinds of complaint, have been tested as a form of medical therapy. They may be administered locally or systemically. When the initial line of medical therapy has failed and the breast discomfort is severe, hormonal treatments such tamoxifen, danazol, and bromocriptine are also employed.^[10,11] The quest for a remedy is ongoing, particularly in the majority of instances that are resistant to all forms of therapy. Breast discomfort was identified as a significant issue in the present research that has an impact on how women live their lives. Goal of the study: When combined with the patients' risk factors, the research aims to determine if breast discomfort is brought on by pathological or hormonal changes.

MATERIAL AND METHODS

In a prospective research, 250 Iraqi women who were hospitalised to the Early Detection Center for Cancer at Al Yarmouk Teaching Hospital between January 5 and

January 12, 2022, reported breast discomfort. Their demographic data was gathered from the medical records in the hospital's statistics department and connected to the present study.

Statistical analysis and data management

IBM's SPSS 16.0 (Statistical Program for the Social Sciences) was used to code and input the obtained data (SPSS for windows, Rel. 16.0.2007, SPSS Inc., Chicago, IL, USA). The mean and standard deviation were used to represent the continuous variables. The frequency and percentage of the category data were examined.

RESULTS

The average age of 250 patients we included in the study is 37.11. The average age for the first menstruation was 12.58, average menopausal age was 46.15. 43 out of 250 patients were post-menopausal, as shown in table 1.

Table (1): Age and Reproductive details of participants.

| <i>Demographic Characteristics</i> | <i>No.</i> | <i>Means ± SD</i> |
|------------------------------------|------------|-------------------|
| Age (year) | 250 | 37.11±8.575 |
| Age at menarche (year) | 250 | 12.58±0.622 |
| Age at menopause (year) | 43 | 46.15±1.893 |
| SD = Standard Deviation. | | |

Table 2 shows the demographic information and details related to reproductive status and that 51 (51%) were housewives, 49 (49%) were employed and hysterical to menstruation 53 (53%) were regular and 28 (28%) were irregular. 59 (59%) were married, 41 (41%) were single, 31 (31%) were lactating, and 69 (69%) were not. For family history in breast cancer there were 33 (33%) of participants positive, divided to 23 (23%) positive 1st degree, 10 (10%) positive 2nd degree, and 67 (67%) negative, 21 (21%) past medical history, and as a drug history there were 12 (12%) on antihypertensive drugs, 10 (10%) on Diabetes Mellitus drugs, 21 (21%) oral contraceptive pills, and 2 (2%) on anti-Asthmatic drugs.

Table 2: Participants characteristics with risk factors.

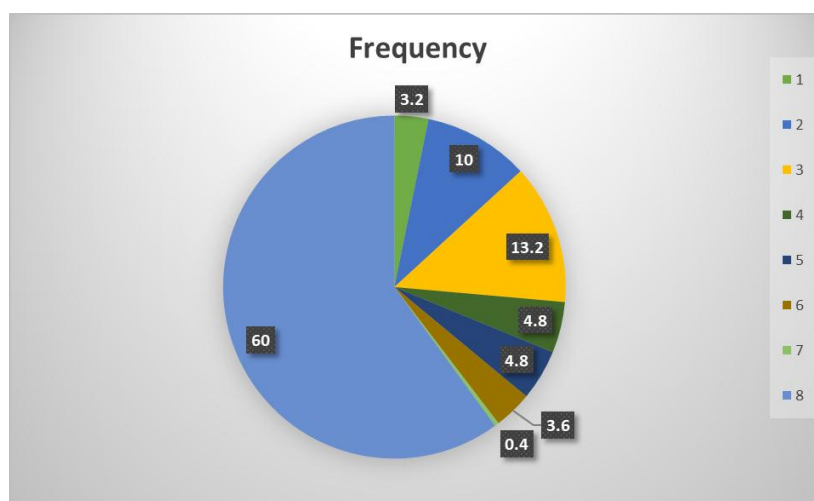
| <i>Main categories</i> | <i>Subcategories</i> | <i>Frequency</i> | <i>(%)</i> |
|--------------------------|----------------------|------------------|------------|
| Occupation | Housewife | 51 | (51%) |
| | employee | 49 | (49%) |
| Menstrual Status | Regular | 53 | (53%) |
| | Irregular | 28 | (28%) |
| Marital Status | Married | 59 | (59%) |
| | Single | 41 | (41%) |
| Lactation | Lactating | 31 | (31%) |
| | Not lactating | 69 | (69%) |
| Family History of Cancer | Positive | 33 | (33%) |
| | Negative | 67 | (67%) |
| Past medical history | | 21 | (21%) |
| Drug history | Anti-hypertensive | 12 | (12%) |
| | D.M drugs | 10 | (10%) |
| | contraceptive | 21 | (21%) |
| | Asthma drugs | 2 | (2%) |

250 participants who presented with mastalgia with all of their demographic characteristics and related reproductive details, final diagnosis for them was (99.6%) were benign tumor and accepted one (0.4%) of them was malignant. moreover 8 (3.2%) were intraductal papilloma, 25 (10%) were fibroadenoma, 12 (4.8%) were

simple cyst, 12 (4.8%) were ductasia, 9 (3.6%) were fat necrosis and 1 (0.4%) were invasive ductal carcinoma as malignant diagnosis, and 150 (60%) presented with mastalgia but they were normal without of tumor, as it is shown in table 3.

Table 3: Final Diagnosis for participants presented with mastalgia, no. = 250.

| <i>Final Diagnosis</i> | <i>Frequency</i> | <i>(%)</i> |
|---------------------------|------------------|------------|
| Intraductal papilloma | 8 | (3.2%) |
| Fibroadenoma | 25 | (10%) |
| Fibrocystic diseases | 33 | (13.2%) |
| Simple cyst | 12 | (4.8%) |
| ductasia | 12 | (4.8%) |
| Fat necrosis | 9 | (3.6%) |
| Invasive ductal carcinoma | 1 | (0.4%) |
| Mastalgia without tumor | 150 | (60%) |



DISCUSSION

Mastalgi,^[12] is the most frequent breast symptom and the leading cause of outpatient clinic visits for breast-related issues. Although if studies support the idea that there is no conclusive link between breast discomfort and breast cancer, the psychological state of concern and dread among women about developing breast cancer remains altered.^[13,14] Table 1's findings indicate that the participants' ages ranged from 21 to 62 years, with an arithmetic mean and standard deviation of 37.11 and 8.575. According to a study by Johnson et al, it was proven that the arithmetic mean of ages in women ranges between 35 and 55 years.^[15] and the mean age of the mastalgia group was higher revealing that breast pain frequently occurs in the perimenopausal period when hormonal and menstrual irregularity takes place. This rate is known to occur in women who have mastalgia. According to table 2, the proportion of women with a history of three or more breastfeeding had increased breast pain in the case of lactation and its effects on increased breast pain. These findings suggest that an increase in breastfeeding is linked to an increase in breast discomfort, which is linked to a rise of births and, therefore, an increase in exposure to the negative effects of high levels of prolactin and oestrogen. In addition,

breast tissue may undergo structural changes after three or more cycles of breastfeeding, particularly in the ductal system, which may result in ductal dilatation and breast pain. Johnson and others.^[15] They discovered that postmenopausal women made up the bulk of their asymptomatic patients. A substantial correlation between the asymptomatic group and postmenopausal state was also seen in other research.^[15,16] In contrast to the results of the studies mentioned above, which suggested that lower oestrogen levels brought on by menopause may result in a reduction in breast pain symptoms, the percentage of postmenopausal women in our study group was significantly lower, at 43, than the percentage of premenopausal women. Its hormonal origin is further supported by the association of cyclic mastalgia with the use of hormonal medication, such as oral contraceptives and hormone replacement therapy, and by the remission of the condition during pregnancy/lactation and menopause.^[18] OCPs (oral contraceptive pills), oestrogen and progesterone hormonal therapy, certain antidepressants like SSRI (selective serotonin reuptake inhibitors), and antihistamines are among the drugs that have been linked to breast discomfort. Studies have shown that worry, stress, and depression are causes, while others have suggested that smoking, fatty foods,

and caffeinated beverages are also significant contributors to its occurrence.^[19] Breast discomfort is significantly associated with benign breast diseases.^[20,22] Even while some studies link breast discomfort to breast cancer, there is still disagreement among scientists on this matter.^[23,26] although the findings of the present research revealed a significant prevalence of breast discomfort in patients with benign breast illnesses (Table 3), and this is consistent with Kizilkaya et al. 99% of those who came to specialist clinics for breast assessment had benign abnormalities. Indeed, one (0.4%) instance in our research had mastalgia at first but later revealed malignancy, as shown in table 3, and this is consistent with several studies that suggest a ratio of 2-7% for the existence of a malignancy in patients with mastalgia.^[27,31] The study's findings thus showed that there is a connection between breast discomfort and benign lesions; in table 3, there were fibroadenoma, simple cyst, and fibrocystic illness, which were all found using ultrasound but are also debatable because of ^{22, 24}. According to Kizilkaya et al. 20's study of 1150 mastalgia patients, simple cysts and fibroadenomas were the most typical concomitant benign abnormalities. Also, individuals with widespread breast discomfort had a considerably greater prevalence of fibrocystic disease as shown by ultrasound. It is not surprising that fibrocystic disease causes widespread breast discomfort since it is a condition that generally affects the breast parenchyma. While the results of our research suggest a link between breast discomfort and cancer, this topic is still debatable, and more extensive and targeted prospective investigations are still required to clarify the connection.

CONCLUSION

Evaluation of breast in our study revealed the pain due to normal physiological changes related to hormonal fluctuation is common presenting in our clinic but due to pathological process such as Cancer is a rare symptoms is just 0.4% from our study.

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