

# Breast Pain: Clinical Pattern and Aetiology in a Breast Clinic in Eastern Nigeria

Ochonma A Egwuonwu, Stanley NC Anyanwu, Gabriel U Chianakwana, Eric C Ihekwoaba

Department of Surgery, Nnamdi Azikiwe University Teaching Hospital, Nnewi, Anambra State, Nigeria

## ABSTRACT

**Background:** Patients with breast pain are likely to be very worried because some consider pain in the breast as an indication of malignancy. **Objective:** To highlight the causes of pain in the patients are presenting to our breast clinic. **Materials and Methods:** A prospective study of all consenting patients with breast disease presenting to the breast clinic was conducted from January 2004 to December 2008. **Results:** A total of 664 patients presented to the breast clinic during the study period. Of this number, 127 presented with breast pain either as the sole symptom or in association with other symptoms. The presenting complaints were a pain, pain with lump, and pain with nipple discharge in 63 (49.6%), 59 (46.4%), and 5 (4.0%) patients, respectively. The pain was noncyclical in 96 (75.6%) patients. The site of the pain was whole breast in 87 (68.5%) patients and a lump in 40 (31.5%). The clinical diagnosis in 31 (24.4%) cases was fibrocystic disease, 28 (22.0%) cancer, 23 (18.1%) unknown, 10 (7.9%) fibroadenoma, 8 (6.3%) duct ectasia, 6 (4.7%) normal breast, and others 21 (16.5%) cases benign diseases were diagnosed. The histological diagnosis was fibrocystic changes, carcinoma, and fibroadenoma in 15 (42.9%), 10 (28.6%), and 5 (14.3%) patients, respectively. Others were benign phyllodes, abscess, duct ectasia, chronic mastitis, and lipoma, each constituting 1 (2.9%) case. **Conclusion:** Breast pain constitutes a small proportion of complaints to our breast clinic. Fibrocystic changes were the most common cause of breast pain both clinically and histologically.

**KEYWORDS:** Aetiology, breast, pain

## INTRODUCTION

Breast pain is a common problem in the setting of both primary care and breast clinics. Some researchers have found it to be more common than breast cancer as a presentation.<sup>[1]</sup> Preece *et al.*<sup>[2]</sup> proposed a classification with six subgroups: Cyclical mastalgia, duct ectasia, Tietze's syndrome, trauma, sclerosing adenosis, and cancer. Mastalgia can be associated with premenstrual syndrome, fibrocystic breast disease, psychologic disturbance and rarely, breast cancer.<sup>[3,4]</sup> For the majority of women, it is a self-limiting condition, with the breast being normal and few sought treatment.<sup>[5-8]</sup> Nevertheless, in a few cases, severe, prolonged cyclical or noncyclical breast pain may cause a major disturbance to various aspects of life.<sup>[9]</sup> Confronted with the patients complaining

## Address for correspondence:

Dr. Ochonma A Egwuonwu,  
Department of Surgery, Nnamdi Azikiwe University Teaching Hospital,  
Nnewi, Anambra State, Nigeria.  
E-mail: [egwuobi@yahoo.com](mailto:egwuobi@yahoo.com)

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of breast pain, clinicians have to determine whether it arises from a mammary or an extra-mammary source. If the problem originates from the breast, further management depends on its nature, severity, and duration. Also, it has been demonstrated that breast pain is not associated with increased risk for cancer.<sup>[10]</sup> This study aims to highlight the causes of breast pain and their distribution in patients presenting to our breast clinic.

## MATERIALS AND METHODS

A prospective study of all consenting patients with breast disease presenting to the breast clinic was conducted from January 2004 to December 2008. The data of all patients presenting with breast pain form the basis of this study. The data included; age at presentation, presenting complaints, menstrual status, the relation of pain to the menstrual cycle, and the side of the breast affected. The clinical evaluation was done by a consultant general surgeon or a specialist senior registrar in general surgery. Simple frequencies and Chi-square analysis were done using SPSS statistical software

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version 15.0 (Statistical Package for Social Sciences SPSS Inc. 233 S Wacker Drive No 1100 Chicago, IL 60606).

## RESULTS

A total of 664 patients presented to the breast clinic during the study period. Of this number, 127 presented with breast pain either as the sole symptom or in association with other symptoms. Their ages ranged from 14 years to 70 years, with a mean age of 33.7 years. The presenting complaints were a pain, pain with lump, and pain with nipple discharge in 63 (49.6%), 59 (46.4%), and 5 (4.0%) patients, respectively. The duration of symptom was <1 month in 31 (24.4%) and >12 months in 32 (25.2%) Premenopausal patients were 114 (89.8%) and 50 (39.4%) were nulliparous. The pain was noncyclical in 96 (75.6%) patients. It affects the right breast in 50 (39.4%) patients same as the left. Both breasts affected in 27 (21.3%) cases. The site of pain was the whole breast in 87 (68.5%) patients and the lump in 40 (31.5%). The clinical diagnosis [Figure 1] in 31 (24.4%) cases was fibrocystic disease, 28 (22.0%) cancer, 23 (18.1%) unknown, 10 (7.9%) fibroadenoma, 8 (6.3%) duct ectasia, 6 (4.7%) normal breast, and other benign diseases were diagnosed in 21 (16.5%) cases.

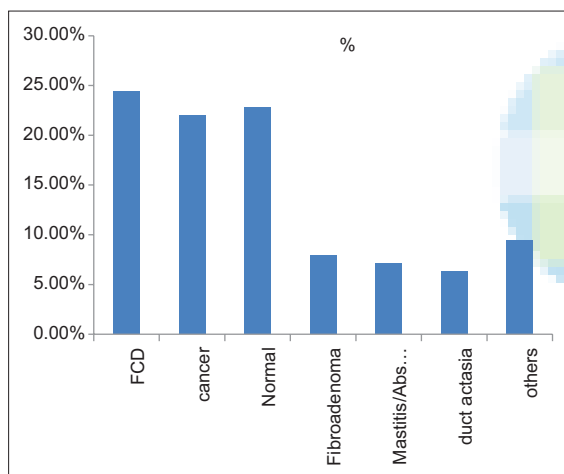


Figure 1: Chart of clinical diagnosis of breast pain

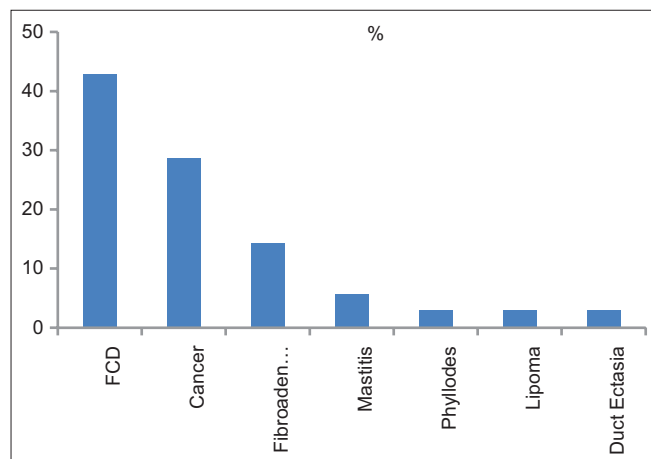


Figure 2: Chart of histological diagnosis of breast pain

The histological diagnosis [Figure 2] was fibrocystic changes, carcinoma, and fibroadenoma in 15 (42.9%), 10 (28.6%), and 5 (14.3%) patients, respectively. Others were benign phyllodes, abscess, duct ectasia, chronic mastitis, and lipoma, each constituting 1 (2.9%) case. In patients with the clinical diagnosis of breast cancer, the presenting complaints were a pain in 14.3%, pain with nipple discharge in 10.7%, and pain with a lump in 75.0%. Also, 70% of those with histological diagnosis of cancer had pain and lump as the presenting complaint. All the patients diagnosed of cancer clinically or histologically had a palpable breast lump on clinical breast examination.

## DISCUSSION

In this study, the patients with breast pain had a mean age of 33.7 years, and 60.6% were multiparous; 24.4% had cyclical pain, and 75.6% had unilateral pain. In Australia, Wetzig<sup>[10]</sup> noted that the patients with breast pain had an average age of 42 years and 87.0% were multiparous, cyclical pain occurred in 59.0%, and unilateral pain occurred in 38.0%.

In Nigeria, Chiedozie and Guirguis<sup>[11]</sup> found that mastalgia was more often associated with benign tumor (57 out of 67 or 85.0%) than malignant neoplasm (15.0%) in patient with histologically confirmed breast tumors. This agrees with our finding of the cause of mastalgia to be benign in 25 out of 35 (71.4%) and malignant in 10 (28.6%) of the patients with the histological diagnosis.

In Ghana, Clegg-Lampsey *et al.*<sup>[12]</sup> studied 447 patients with pain. They noted that 322 (72.0%) had pain as the only symptom and 125 (28.0%) had breast lump and nipple discharge in addition to the pain. They also noted that in patients with pain and other symptoms, the common diagnoses were fibroadenosis in 25 (20.0%) cases, breast cancer in 20 (16.0%), and normal in 18 (14.4%) cases. In our study, the pain was the only complaint in 63 (49.6%) patients. The higher proportion recorded by Clegg-Lampsey *et al.* may be due to the fact that their patients were from a self-referral breast clinic. In our study, the common clinical diagnoses were; fibrocystic changes in 31 (24.4%) cases, cancer in 28 (22.0%), and common histology diagnoses were fibrocystic changes and carcinoma in 15 (42.9%) and 10 (28.6%), respectively.

In another study of 1612 Ghanaian women with breast pain, the clinical breast examination was normal in 762 (47.3%). Fibrocystic breast changes, lactational mastitis, nonlactational mastitis, and chronic breast abscess were the most common diagnosis made and accounted for 307 (19%), 189 (11.8%), 87 (5.4%), and 77 (4.8%), respectively. Carcinoma was diagnosed in 9 (0.6%) of all the cases.<sup>[7]</sup>

In Cameroun, 9400 evaluable patients with the breast complaints were consecutively studied by Bejanga *et al.*<sup>[13]</sup> Their ages ranged between 15 and 65 years with a median of 33 years. Five thousand six hundred and seventy-five of these presented on account of pain, and a mass was the cause of pain in 74.0%. Gross fibrocystic disease of the breast was the most common tumor encountered

in this group. The percentage (60.4%) of patients presenting with breast pain in their study is quite high as compared to 19.1% in our study. This may be because our clinic is a referral center but not a self-referral clinic.

The low rate of histological diagnosis in our study is because biopsy and histology are done on a fee for service basis, and the patients are responsible for sending the tissue for histology and retrieving the result on the presentation of the evidence of payment.

Though mammography was not done on our patients mainly due to the nonavailability of mammogram machine in our center during the study period, some researchers have noted that the prevalence of breast cancer was similar in women with painful breast(s) and the control asymptomatic cases.<sup>[6,14]</sup> Jumah *et al.*<sup>[14]</sup> in a study of 726 women titled; women with painful breasts without palpable masses: Do they really need a mammogram? The authors noted that mammography had a low diagnostic yield of malignant lesions, just as it was found in the control group. They concluded that mammography in these patients would only provide a reassurance. The risk of breast cancer have been found to be significantly higher in patients presenting with breast pain in addition to other symptoms, as compared to patients with breast pain as the only symptom (16% and 1.24%, respectively,  $P < 0.0001$ ).<sup>[12]</sup> In this study, the likelihood of breast cancer both clinical and histological (75% and 70%, respectively) was higher for patient whose presenting complaints was a pain with lump. All the patients with a clinical and histological diagnosis of breast cancer had a palpable lump on clinical breast examination, and none was misdiagnosed as a benign lesion clinically. Though two patients with the histological diagnosis of breast cancer presented with breast pain only, clinical examination revealed a mass involving the whole breast in one and an ill-defined 7.0 cm diameter mass in the other. The high rate of diagnosis of the breast cancer as the cause of breast pain reflects the advanced stage at the presentation of our breast cancer patients. The low rate of clinical diagnosis of mastitis and breast abscess (7.1%) as the cause of breast pain in our study may be because our clinic is not a self-referral clinic. Therefore, the patients with mastitis and breast abscess are like to be managed by the general practitioner and not referred to our breast clinic.

## CONCLUSION

Breast pain accounts for a small proportion of complaints to our breast clinic. Fibrocystic changes were the most common causes of breast pain both clinically and histologically, followed

by the breast cancer. No diagnosis of breast cancer was made in the absence of a palpable breast lump in addition to the pain as a presenting complaint.

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## Conflicts of interest

There are no conflicts of interest.

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