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BREAST CANCER RISK IN PATIENTS WITH BREAST PAIN IN ACCRA, GHANA

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ABSTRACT

Objective: To determine the risk of breast cancer in patients presenting with breast pain in Accra, Ghana.

Design: Retrospective clinical study.

Setting: A self-referral breast clinic in Accra, Ghana.

Subjects: Patients with breast pain as a presenting complaint, between January 2001 and December 2005.

Interventions: Patients were investigated by triple assessment.

Results: There were 447 patients with pain, 322 as the only symptom and 125 in addition to other symptoms like breast lump and nipple discharge. Patients with pain only were found to have no detectable abnormality 203 (63%) and fibroadenosis 78 (24.2%) as the most common diagnoses. Breast cancer was found in four (1.24%) of them, all of whom had abnormality on clinical breast examination. In patients with pain as well as other symptoms the common diagnoses were fibroadenosis 25 (20%), breast cancer 20 (16%) and normal 18 (14.4%).

Conclusion: The risk of breast cancer is significantly higher in patients presenting with breast pain in addition to other symptoms, compared to patients with breast pain as the only symptom (16% and 1.24% respectively $P < 0.0001$). Patients with breast pain should always have breast examination and not simply reassured. Women should be encouraged to do breast self examination.

INTRODUCTION

Breast cancer is common in Ghana, and more than 50% patients present with advanced disease (1,2). Some of these patients have extensive peau d'orange, ulceration and sometimes pain and bleeding when they first report to hospital.

Breast pain is the commonest breast complaint, occurring in up to two-thirds of women during their reproductive life (3). It is often associated with physiological breast changes or benign breast disease (3,4). Breast pain has a potentially important relationship to breast cancer (4). Some

studies have suggested that although breast pain is not often associated with cancer cyclical mastalgia may represent an independent and useful clinical marker of increased breast cancer risk (5,6). While others have shown a protective effect of breast pain by causing patients to report early to hospital (7), localised pain must be fully investigated to exclude the diagnosis of breast cancer (6,8).

In a previous study of 120 Nigerian women who presented with histologically proved breast cancer 8.3% of them had pain (9). Although many of our breast cancer patients who have advanced disease have pain (due to ulceration, involvement of

muscles, chest wall and nerves), pain as a presenting complaint of early breast cancer is apparently not common in Accra. The risk of cancer in patients presenting with pain as a presenting symptom has not been previously studied in Accra, Ghana.

MATERIALS AND METHODS

Patients with breast pain presenting to a self-referral clinic at the Korle Bu hospital in Accra over a five-year period (January 2001 to December 2005) were studied to determine the risk of breast cancer in that group of patients. Using a specially designed form the patients' presenting complaints were recorded. Patients presenting with other symptoms but with no pain were not included in the study. Investigation was by triple assessment: after taking a full history the patients had clinical examination and radiological investigation, followed by fine needle aspiration cytology (FNAC) or core biopsies in patients with clinical or radiological abnormality. Ultrasonography, rather than mammography, was done if the patient was below the age of 35 years. Patients found to have no abnormality after triple assessment were reassured and encouraged to do breast self examination. Patients with abnormalities were referred to the appropriate specialist clinic.

The information obtained was compiled and analysed using Microsoft Excel software. Statistical analysis was done using Epi-Info statcalc.

RESULTS

There were 447 patients, aged between 14 and 75 years (mean 38.25; median 37 years). Two hundred and eighty two (63.1%) were married, 131 (29.3%) were single, 18 (4%) were divorced and 16 (3.6%) were widowed. There were two males and 445 females.

The majority 322 (72%) had pain as the only symptom. One hundred and nine had two symptoms and 16 had three symptoms (Table 1). The duration of pain ranged from 1 week to 5 years (mean 11 months; median 3 months). Pain was felt in the right breast in 138 (30.9%), left breast in 152 (34%) and bilateral in 157 (35.1%). There was a family history of breast cancer in first degree relatives in 28 of the 447 patients.

Patients with pain as the only symptom: Of the 322 patients presenting with pain as the only presenting complaint, pain was felt on the right in 87 (27%), left

in 101 (31.4%), and bilateral in 134 (41.6%). Their ages ranged from 14 to 75 years (mean 38.9, median 38 years).

Table 1
Symptoms

Symptom	No.
Pain only	322
Pain + lump	78
Pain + nipple discharge	26
Pain + swelling	1
Pain + chest pain	1
Pain + ulceration	2
Pain + nipple retraction	1
Pain, discharge, lump	12
Pain, lump, ulceration	2
Pain, lump, itching	1
Pain, discharge, ulceration	1
Total	447

No abnormality was found in 203 patients (63%) and they were reassured. Fibroadenosis was the next commonest, in 78 patients (24.2%). Breast cancer was diagnosed in four (1.24%) patients. Other diagnoses made are shown in Table 2.

Table 2
Patients presenting with pain only

Diagnosis	No.	(%)
No detectable abnormality	203	63.04
Fibroadenosis	78	24.22
Fibroadenoma	8	2.48
Spondylosis	4	1.24
Tietze's disease	4	1.24
Mondor's disease	4	1.24
Ca Breast	4	1.24
Pregnancy-induced mastalgia	3	0.93
Musculoskeletal pain	3	0.93
Duct ectasia	2	0.62
Mastitis	2	0.62
Anxiety disorder	1	0.31
Breast abscess	1	0.31
Eczema	1	0.31
Fungal infection	1	0.31
Galactocoele	1	0.31
Intertrigo	1	0.31
Puberty-induced mastalgia	1	0.31
Total	322	100

Patients with pain and other symptoms: One hundred and twenty five patients had pain in addition to another symptom, mainly lump and nipple discharge. Their ages ranged from 14 to 65 (mean 36.5; median 36 years).

The pain was felt on the right in 52 (41.6%), left in 51 (40.8%) and bilateral in 22 (17.6%).

The majority of this group had fibroadenosis in 25 (20%) patients. Breast cancer was not uncommon, in 20 (16%) patients. Details of other diagnoses made are shown in Table 3. A definite diagnosis was not achieved in some patients with non-cyclical mastalgia and nipple discharge, although no abnormality was found.

Table 3
Patients with pain and other complaints

Diagnosis	No.	(%)
Fibroadenosis	25	20
Ca Breast	20	16
No detectable abnormality	18	14.40
Fibroadenoma	17	13.60
Non-cyclical mastalgia*	10	8
Breast abscess	6	4.80
Galactorrhoea*	5	4
Cyst	4	3.20
Nipple discharge*	4	3.20
Dermatology	3	2.40
Duct papilloma	3	2.40
Duct ectasia	2	1.60
Axillary lymph node	2	1.60
Gynaecomastia	2	1.60
Mondors disease	1	0.80
Pregnancy-induced mastalgia	1	0.80
Phylloides tumour	1	0.80
Lipoma	1	0.80
Total	125	100

* No definite diagnosis made

Patients with cancer: Twenty four patients in all had cancer. Their ages ranged from 32 to 60 (mean 53, median 45). Fourteen had locally advanced (Stage III and IV) disease. The pain was unilateral and focal in all cases.

Four of the 24 had pain as the only presenting complaint. Of the other 20, 15 had pain and a lump; three had pain, lump and bloody nipple discharge;

and two had pain, lump and ulceration. Twelve of the 20 had noticed the lump for varying periods before the pain (ranging from two weeks to 28 months). There was a family history of breast cancer in first degree relatives in three of the patients with cancer.

DISCUSSION

Of the 322 patients presenting with breast pain without other symptoms, only four were found to have breast cancer. The risk of breast cancer in our patients presenting with breast pain as the only symptom was therefore one (1.24%). All four of these patients, however, had abnormalities on clinical examination: there was a lump in two patients and evidence of peau d'orange without a palpable lump in the other two.

It can be concluded that the risk of breast cancer in the patients with breast pain as the only symptom would have been nil if they had been practising breast self examination and/or had breast awareness education. Early breast cancer can be detected by radiological assessment before it becomes clinically evident. In this series, however, none of the patients with normal clinical breast examination was found to have cancer after radiological assessment. This re-emphasises the importance of breast self examination, performed regularly and properly, in the absence of a national breast screening programme in Ghana.

It has been shown that up to one third of subclinical breast cancers, diagnosed by radiological assessment and confirmed by biopsy, have pain (8). From this study and in the experience of the authors, however, the diagnosis of cancer from radiological screening alone appears to be very low in Accra. This may be because there is no national screening programme where larger numbers of women would have been screened by mammography.

The risk of breast cancer is significantly higher in patients with breast pain and other symptoms, compared to patients with breast pain as the only symptom (16% and 1.24% respectively; $p < 0.0001$). This study therefore shows a significant risk of cancer in Ghanaian women complaining of pain in addition to other symptoms. Even with patients with pain only who had cancer, there was obvious abnormality present on clinical examination. Patients with breast pain should, therefore, always have clinical breast examination and not simply reassured; a few of the

patients with cancer claimed to have sought medical advice previously but were simply reassured or given antibiotics or analgesics. Patients with breast pain and another symptom certainly need to be investigated thoroughly to exclude cancer, i.e. by clinical examination and radiological assessment (mammography and/or ultrasonography).

Analysis of the patients found to have breast cancer shows that many of them had discovered a lump months before the pain started. This reinforces our perception that the absence of pain in most cases of breast cancer may account for the long duration of symptoms. Conversely it is consistent with the finding that pain, when present, may lead to early diagnosis of breast cancer.

A strong family history of breast cancer is one way of suspecting hereditary breast cancer. There was a family history of breast cancer in first degree relatives in 25 of 423 patients who did not have cancer (5.9%) and in three of 24 with cancer (12.5%). The difference is, however, not significant (Fisher exact $p=0.21$). Although about 10% of breast cancers are thought to be hereditary (10), the role of heredity in breast cancer in Ghana is unknown.

In conclusion, there is a low risk of cancer in Ghanaian patients presenting with breast pain as the only presenting complaint. In women found to have cancer there was invariably an abnormality detected by the patient themselves or at clinical breast examination. Many patients who had detected lumps tended to present only after pain ensued.

It is important to increase breast awareness education programmes and encourage women to do monthly breast self examination. Clinicians must be encouraged to examine the breasts of women who complain of breast pain and not to simply reassure them. A National breast screening programme will lead to earlier diagnosis in these patients with a long duration of symptoms.

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