

PATTERN OF BREAST DISEASE IN GHANA

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SUMMARY

A study of breast diseases as seen at a surgical clinic in the Korle Bu Teaching Hospital (KBTH) over a period of 12 months is presented. There were 300 patients, 295 women and 5 men with a mean age of 33.6 years. Benign breast disorders were present in all groups but were commoner in the younger age groups. Lumps were more common in the upper lateral quadrants.

Fibroadenosis, 100(33.3%), was found to be the commonest breast disorder among Ghanaian women. Mastitis/breast abscess, 56(18.7%), was the second most common breast disease affecting mainly nursing mothers. Fibroadenoma constituted 16.3% (52/300) of cases and was the third most common lesion. Nearly 47% of 47 patients with breast carcinoma presented with stages III and IV disease. Male breast disorders were relatively uncommon and constituted 1.7%(5/300) of breast diseases. Thus, the pattern of breast diseases in Ghana contrasts those of other places where fibroadenoma is reported to be the commonest breast diseases.

The incidence of breast carcinoma is increasing in Ghana but many patients present late. Efforts must therefore be directed at public education as well as research into the epidemiology and outcome of breast carcinoma in Ghana.

Keywords: Breast cancer, fibroadenoma, mastitis/breast abscess, diseases pattern.

INTRODUCTION

Breast disease has become a major health problem in Ghana in recent times. Previous studies in Ghana have been based on pathological reports and retrospective reviews of breast cancer¹⁻³. One study of breast diseases in general in Korle Bu Teaching Hospital (KBTH) was also retrospective and was fraught with the usual problems of retrospective reviews⁴. A recent prospective study also dealt with aspects of management of breast cancer.

A prospective clinical study of breast disease as seen in one surgical unit of KBTH was therefore undertaken to document the pattern of breast in this centre and to provide baseline information for future studies.

PATIENTS AND METHODS

Patients attending one of the four adult surgical outpatient clinics of the Korle Bu Teaching Hospital, Accra, over a 12 month period with breast disease were recruited to the study. Detailed information on each patient was recorded by the authors on a proforma specially designed for the study. The information sought included, among other things, the patients name, age, sex and occupation. The presenting features and their duration, menstrual history, parity, previous breast disease and family history of breast and other relevant information were also recorded. Clinical examination of both breasts at the initial presentation and at subsequent visits was carried out by the same observer. Breast lumps were measured in two planes to the nearest 1.0cm. Out patient fine needle aspiration cytology (FNAC) of suspicious breast lumps was undertaken using a 21G needle and a 10ml syringe. Four specimen slides were prepared from each fine needle aspirate. The specimens were fixed in 95% alcohol and stained by papanicolaou technique. Clinically benign lumps had excision biopsy done as day cases under local anaesthesia with 1% Xylocaine in adrenaline. Few cases required general anaesthesia. Mammography was done in patients aged 40 years or older who presented with breast symptoms and in whom no discrete lumps were found in otherwise granular or nodular breasts.

A diagnosis of fibroadenosis was made clinically in patients who presented with cyclical, premenstrual, bilateral or unilateral breast pain and tenderness associated with generalized or localized lumpiness or nodularity of the breasts. In a few cases the clinical diagnosis was confirmed by biopsy or aspiration

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cytology. The latter were patients with nodular breasts and focal thickened areas.

Those with acute mastitis or breast abscesses presented with acute breast pain, fever, swelling and oedema of the breast, marked tenderness and a history of lactation in some cases.

Patients with benign or malignant breast lumps had their diagnosis confirmed at FNAC or open biopsies.

Patients were managed according to their diagnosis. Patients with acute mastitis were treated with antibiotics and analgesia with support to the breast whilst those with breast abscesses had incision and drainage followed by daily dressing. Those with benign breast lumps had excision biopsies done and those with breast cysts or galactoceles had needle aspirations. Patients with fibroadenosis were treated. Symptomatically with reassurance, analgesia and support to the breasts. Patients were reviewed at two weeks, one month and three months to determine the outcome of treatment. Those with breast carcinoma were managed further with surgery where indicated, hormonal therapy with or without chemotherapy.

RESULTS

A total of 300 patients were seen during the study period, 295 women and 5 men. The breast disease and age distribution of the patients are shown in Table 1.

Table 1 Age distribution of breast disorders

Age/Years	No	%	Fibroadenosis	Mastitis/Abscess	Fibroadenoma	Cancer	Misc
10-19	37	12.3	12	7	14	-	4
20-29	96	32	37	26	21	3	9
30-39	76	35.3	29	15	7	8	17
40-49	55	18.3	19	4	6	18	8
50-59	20	5.7	3	3	4	6	4
60-69	7	2.3	-	1	-	4	2
70-79	9	3	-	-	-	8	1
Total	300	100	100	56	52	47	45

Table 2 Distribution of lumps in breast quadrants

Breast	Upper Lateral	Upper Medial	Lower Lateral	Lower Medial	Central	Total
Right	43 (23.1)	11 (5.9)	16 (8.6)	8 (4.3)	30 (16.1)	108 (58.1)
Left	31 (16.7)	6 (3.2)	9 (4.8)	2 (1.1)	30 (16.1)	78 (9.9)
Both	74 (39.8)	17 (9.1)	25 (13.4)	10 (5.4)	60 (32.2)	186 (100)

Values in parentheses are percentages.

The mean age was 33.6 years (range 13-75years). Women between 40 and 49 years were the commonest victims. The duration of symptoms varied from 1 day to 14 years with 47% of patients pre-

senting within 1 month of onset. Twenty three percentage (23%) of patients presented between 2 and 6 months, 24% after 6 months and 6% were uncertain about the duration of symptoms. The average duration of symptoms in patients with carcinoma before presentation was 8 months (range 3 weeks to 2 years).

Of the 186 clinically palpable lumps, 108(58.1%) were found in the right breast and 78(41.9%) in the left breast (Table 2). Fifteen patients had bilateral breast lumps. Lumps were found most commonly in the upper lateral quadrants of both breasts than in other areas. This was followed by lumps located in the centre of the breast. Breast lumps were least common in the lower medial quadrants.

Two hundred and thirty one patients (77.0%) had benign breast disease and 21(7.0%) had normal breast (Table 3). Eighteen patients (7.2%) had previous benign breast disease. Fibroadenosis (33.3%) was the most commonly diagnosed breast disease. Fibroadenoma was present in 62 (17.3%) patients. Infections of the breast were diagnosed in 56 (18.7%) patients. About forty eight percent of the cases of mastitis/breast abscess were lactation related.

Forty seven patients (15.7%) had breast carcinoma and all women. Ten patients had stage I disease, fifteen with stage II disease, nine with stage III disease, and thirteen with stage IV disease. Only one of the patients with breast cancer in the study had a

family history of breast carcinoma. About 52.5% of 40 clinically suspicious lumps were confirmed as carcinoma with FNAC (Table 4).

Table 3 Distribution of breast disorders in Accra

Diagnosis	No of Patients	%
Fibroadenosis	100	33.3
Mastitis/breast abscess	56	18.7
Fibroadenoma	52	17.3
Cancer	47	15.7
Normal breast	18	6
Cysts	7	2.3
Gynaecomastia	5	1.7
Nipple disorders	5	1.7
Duct ectasia	4	1.3
Traumatic fat necrosis	3	1
Lymphoma	1	0.3
Lipoma	1	0.3
Accessory breast	1	0.3
Total	300	100

Table 4 Fine needle aspiration cytology (FNAC) of clinically suspicious lumps

Diagnosis	No.	%
Breast carcinoma	21	52.5
Fibroadenoma	7	17.5
Inflammatory cells	6	15
Adenosis	4	10
Fat necrosis	1	2.5
Lymphoma	1	2.5
Total	40	100

There were 45 miscellaneous cases. These included eighteen (6.0%) patients with less than a weeks history of breast pain without underlying granularity or nodularity. All eighteen patients had normal breasts on examination and required only reassurance. Two of these patients with normal breasts had referred pain to the breast from cervical spondylosis. Two other patients who presented with pain and breast enlargement were found to be pregnant. The rest of the miscellaneous cases are shown in Table 3. Three patients had allergic disorders of the nipple and two has non-specific ulcers. Seven patients had cysts – galactoceles (2), inflammatory cysts (2), Montgomery cyst (1) and benign cysts (2). Four lumps were reported as duct ectasia and three as fat necrosis. One patient aged 34 years with a rapidly expanding lump had a fine needle aspiration cytology showing Non-Hodgkins lymphoma. Gynaecomastia was diagnosed in the five male patients and all were idiopathic.

DISCUSSION

Breast disease shows considerable variation with age, hormonal and environmental factors. A number of reports have indicated that changes in breast composition occur with age^{6,7,8}. These changes are often benign and have been explained in part by hormonal influences on the breast tissue. It has been suggested that such changes should be consid-

ered as aberrations of normal breast development and involution rather than diseases^{9,10}. Many patients, however, consider any symptom of the breast as signifying malignancy⁶. Such anxiety often relates to their fear for breast carcinoma which may mimic other breast diseases. In this study the majority of breast diseases were benign and occurred commonly in the reproductive period. All except five patients were women. This finding is consistent with those of other series⁶.

The age distribution shows that benign breast disease is more common in those under 30 years and less so in those above 50 years. The result is similar to the finding of an earlier study in this centre². In the early reproductive period (15-30 years) fibroadenoma was the commonest breast disorder while during the period of cyclical breast changes (25-40 years) fibroadenosis was the commonest. These disorders represent aberrations of normal breast development in the respective age groups⁶. In the present study, 61.7% of patients with breast cancer were less than 50 years old with peak incidence between 40 and 49 years and compares with that of previous studies in which 50% of the patients were less than 45 years^{4,5}. Studies from Nigeria¹¹ also show that the peak age incidence of breast cancer is 40-49 years with 70% of patients aged less than 50 years. In the United Kingdom, however, there is a steady rise in the age specific incidence of breast cancer being highest in patients 80 years and above^{10,11,12}.

Fibroadenosis was the commonest breast disorder. It affects women mostly from 20 to 49 years of age. Fibroadenoma was the third most common breast lesion in this study. This is in contrast to the findings of previous studies in Ghana² which showed fibroadenoma to be the most common breast disease. Our results also contrast those of other studies in West Africa in which patients with fibroadenoma formed the largest group^{13,14} but compares favourably with the results of a recent survey of breast diseases in Ghanaian women¹⁵. This finding probably reflects an increasing awareness of breast cancer in Ghana with increasing numbers of our women seeking medical advice for breast symptoms. About 39.8% of the breast lumps were found in the upper lateral quadrant. These quadrants are thought to contain more breast tissue than the other quadrants. The distribution of breast lumps shown in Table 2 is similar to that of other reports¹⁶. Breast lumps occurred more commonly in the right breast, the reason for this is unclear.

Inflammatory lesions (mastitis and breast abscesses) constitute an appreciable proportion of breast diseases in Ghana (Table 3). Of these, lactation related causes accounted for 67%. This correlates with the high incidence of breast feeding in Ghana and evokes the need for educating nursing mothers on the techniques of breast feeding as well as personal hygiene. A high incidence of lactation related breast abscesses has also been reported in Nigeria where breast feeding is a common practice¹⁷.

Female breast cancer accounted for 47(15.7%) cases of breast diseases seen during the study period. Two of the patients with breast carcinoma had previous breast disease. Only one of the patients with breast carcinoma had a family history of breast carcinoma. Patients with breast carcinoma still present late for treatment in our society. Archampong¹ reported that 75% of patients with breast carcinoma present with stages III and IV disease. In the present study, 47% of breast cancer patients presented with stage III and IV disease. The average duration of symptoms before presentation was seven and a half months overall, with an average of eight months for breast cancers. This shows that 20 years on, we have made hardly any progress towards the early detection of breast carcinoma in this country. There is therefore an urgent need to redouble our efforts in educating the public on the signs and symptoms of breast cancer and on the importance of early presentation for orthodox medical advice.

Gynaecomastia was found to be the most common breast disorder in men as reported in earlier studies⁴. Male breast carcinoma is rare and represents less than 1% of all breast cancer¹⁸. No case of male breast cancer was seen in the present study.

The findings of this study show that the pattern of breast disease in Ghana contrasts those elsewhere. Fibroadenosis is currently the commonest breast disorder in Ghana as opposed to fibroadenoma. Acute mastitis and breast abscess are still the bane of nursing mothers. Breast cancer is becoming increasingly common but nearly half of the patients still present with late stage disease. There is a need for increased public education and prospective studies of the epidemiology and outcome of breast cancer in Ghana.

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