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BREAST MASSES IN ZARIA, NIGERIA

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Abstract
Background: Breast masses are a common problem worldwide. There is usually an urgent need to differentiate benign from malignant masses.
Method: A retrospective study of 428 patients at Ahmadu Bello University Teaching Hospital, Zaria, Nigeria with breast masses in fourteen (14) years was carried out.
Results: There were 401 females and 27 males. There were three hundred and five (71.3%) benign lesions and 123 (28.7%) malignant lesions. One hundred and fifteen (26.9%)), 103 (24.%) and 65 (15.2%) of the masses were carcinoma, fibroadenoma and fibrocystic change respectively. Of the 123 malignant lesions, 115(93.5%) were primary breast carcinoma; of these six (5.2%) were in male patients. Eighty-five (73.9%) of the patients with carcinoma had advanced disease. The commonest histologic type was ductal carcinoma in 96 patients (83.5%). All the 305 patients with benign lesions had excisional biopsies. Majority of patients with carcinoma 104 (90.4%) had mastectomy, the other 11 patients had only biopsies. Eighty-nine females with carcinoma (72.4%) had, chemotherapy. Majority of the patients (91.1%) were seen once after discharge from hospital.
Conclusion: Benign breast lesions (Fibroadenoma and fibroadanesis) are the commonest cause of breast Masses in our environment, followed by carcinoma of the breast. Patients with breast cancer commonly present late, with advanced disease.

Key words: Breast, cancer, advanced diseases

Introduction

Masses in the breast are common worldwide. [1-4] Evaluation of breast masses in young women continues to be a problem. [1] Despite the presence of mammography and fine needle aspiration cytology, excisional biopsy remains the gold standard for diagnosis. [1,5,6] The pattern of breast cancer in our environment is that of an advanced lesion in a patient presenting late to hospital, after all sorts of treatments have failed. [3-5] This is a report of our experience with diagnosis and treatment of breast masses in Zaria, Northern Nigeria.

Patients and methods

In the period January 1988 to December 2001, 505 patients were managed for breast masses at the Ahmadu Bello University Teaching Hospital, Zaria, Northern Nigeria. The clinical, operative and histopathological records of the patients were retrieved and reviewed. The records of 428 patients were found adequate. All records of patients that presented to the Hospital in that period with masses in the breast were retrieved. Those excluded were patients whose records were incomplete for age, histological diagnosis, and those that refused surgery or died before surgery.

Results

Of the 428 patients 401 were female and 27 males (F: M= 15:1). The mean age for females was 36.4 years, range 13-80 years while that of the males was 32.8 years and 18-70 years respectively. Breast masses accounted for 3.5% of the surgical load during the study period. Majority of the females patients were in the first four decades of life, while the males were in the third decade of life (Table 1). The average duration of symptoms before presentation was 10 months, range (2 weeks to 2.5 years). The number of patients with breast masses has generally decreased during the study period.

There were 305 benign lesion (71.3%) and 123 malignant lesion (28.7%) of the malignant lesion 115 (93.5%) were primary carcinoma of the breast, 2 (1.6%) secondary carcinoma, 4 (3.3%) lymphoma, and 2 (1.6%) malignant phylloides tumour. Of the 115 primary carcinoma, 6 were in men (5.2%) (Table 2). The most common lesions were carcinoma in 115,

fibroadenoma in 103, and fibrocystic change in 94 patients. Twenty-one patients had gynaemastia. One patient with carcinoma had stage I disease, 27 stages II, 34 stages III, 51 stages IV and in 2 patients the stages were not recorded. Majority of the patients, 85 (73.9%) presented with clinically advanced disease. The most common histological type was Invasive ductal carcinoma in 96 patients (83.5%) others were anaplastic, lobular, colloid and scirrhous carcinoma.

Two hundred and nine fine needle aspiration biopsies were done (FNAB), of these 188 were for benign and 21 were for malignant lesions. Of the 141 patients that had excisional biopsies of their lesions, 104 and 37 were for benign and malignant lesions respectively. Incisional biopsies were done on 78 patients, 13 and 65 for benign and malignant lesions respectively.

For treatment all the 305 patients with benign lesions had excisional biopsies in 284 (93.9%) and subcutaneous mastectomy in the other 21 (6.9%) patients. Majority of the patients with carcinoma, 104 (90.1%) had mastectomy, 26toilet, 35 simple and 43 modified radical, while the other 11 patients (6 males inclusive) had only biopsies of their lesions. Twenty other patients (17.4%) with carcinoma had bilateral oophorectomy in addition to mastectomy. All the female patients 109 (94.8%) with carcinoma had tamoxifen 20mg daily. Eighty-nine patients (77.4%) had cyclical combine chemotherapy with cyclophosphamide, methotrexate and 5- fluorouracil (C.M.F.) at 3-4 weekly intervals, mostly as adjuvant therapy. Radiotherapy was given to 12 (10.4%) patients, in 6 after mastectomy and the other 6 had biopsies only before radiotherapy.

Majority of the patients 390 (91.1%) were seen only once after discharge from hospital. A few patients (18) with carcinoma of the breast are still attending surgical outpatients clinic, the longest surviving patient is eight years post mastectomy and radiotherapy.

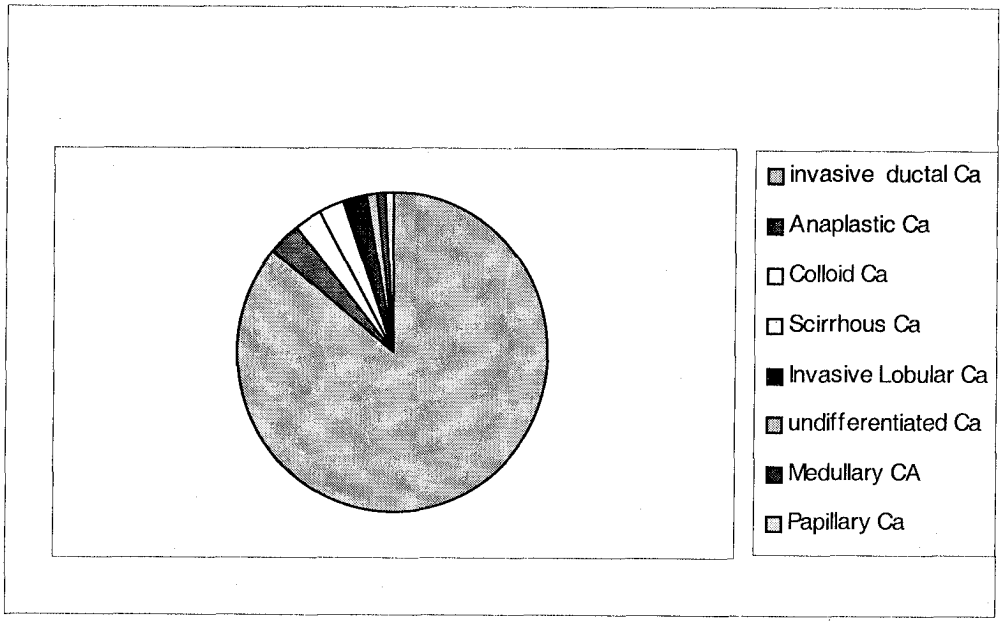
Table 1: Age and sex of 428 patients with breast masses

Age	M No. (%)	F No. (%)	Total No. (%)
10-19	3 (0.7)	93 (21.7)	96 (22.4)
20-29	13 (3.0)	103 (24.1)	116 (27.1)
30-39	3 (0.7)	89 (20.8)	92 (21.5)
40-49	2 (0.5)	71 (16.6)	73 (17.1)
50-59	3 (0.7)	28 (6.5)	31 (7.3)
60-69	2 (0.5)	28 (6.5)	31 (7.3)
70-79	1 (0.2)	6 (1.4)	7 (1.6)
80-89	-	1 (0.2)	1 (0.2)
Total	27 (6. 3)	401 (93.7)	428 (100)

Table 2: Pathologic lesions of 428 patients

Lesion	M No. (%)	F No. (%)	Total No. (%)
Carcinoma	6	109 (25. 5)	115 (26. 9)
Fibroadenoma	-	103 (24. 1)	103 (24. 1)
Fibroadenosis	-	94 (22. 0)	94 (22)
Gynaecomastia	21	-	21 (4. 9)
Non-specific chronic mastitis	-	19 (4.2)	19 (4. 2)
Suppurative mastitis	-	16 (3. 6)	16 (3. 6)
Tabular adenoma	-	10 (2.4)	10 (2.4)
Tabular adenoma	-	8 (1.8)	8 (1.8)
Lactating adenoma	-	7 (1. 6)	7 (1.6)
Schlerosing adenosis	-	6 (1.4)	6 (1.4)
Galactocoele	-	5 (1.0)	5 (1.0)
Phylloides tumour	-	4 (0.9)	4 (10.9)
Others	-	20 (4.7)	20 (4.7)
Total	27 (6.3)	401 (93.7)	428 (100)

Figure 1: Histology of 115 breast carcinomas



Discussion

Benign lesions are by far the commonest cause of breast masses in this report, accounting for 305 of 428 (71.3%) but cancer of the breast is the single most common lesion. This is similar to reports in Northern Nigeria [5-7] and elsewhere. [1,2]

Breast diseases commonly present as masses in the breast and differentiation between benign and malignant lesions clinically is sometimes difficult.[6] Unfortunately clinical examination is the only non-invasive technique at the disposal of most surgeons in the assessment of breast masses in our country. [7] Although the number of breast masses showed a downward trend, this could be explained by the establishment of more tertiary health centres, and the frequent industrials actions in the hospital in recent years. Many tertiary health institutions lack facilities for mammography and fine needle aspiration cytology, (FNAC) and so surgical biopsies are performed for histological diagnosis.

Fibroadenoma, and fibroadenosis were the most common causes of benign lumps in our study. This finding is similar to the finding in other series, [1,8,9] but slightly at variance with the Kano report.[5] The patients with benign masses had excisional biopsies, and subcutaneous mastectomy inclusive. This is the practice in our centre, even after a preliminary FNAC result is available. [10] Although gynaecomastia contributed (4.9%) of the masses in our study, the prevalence was 12 percent as reported from Ibadan.[11] The other benign conditions in our study are those usually found in the breast as in other studies. [8,9]

Cancer of the breast is not uncommon in our environment. The true incidence in our country is yet to be determined, but various studies have reported incidences of 13.5%, 5.3% and 3.5%. [3,12,13] Our study showed that carcinoma of the breast is predominantly a female disease; other malignant conditions were non-Hodgkin's lymphoma, metastatic carcinoma and malignant phylloides tumour. This is similar to reports from America[8] and our country. [10,12,13] Majority of patients with carcinoma in our study, presented with advanced disease (73.9%). This appears to be a common finding in our country. [3,4,10,13,16.] The reasons for this pathetic, but avoidable problem include delay by peripheral health centres in referral, patronage to traditional healers, local herbalists and barbers by the patients, visit to prayer houses and self-medication. [3,14,15.] Carcinoma of the male breast is a rare lesion, only one patient out of 100 with cancer of the breast was male in the report from Lagos, [14] ' and this may account for the paucity of report in the literature. [17,18]. Invasive ductal carcinoma is the commonest histological type of breast cancer in our study. This is consistent with reports from many centers. [4,10,12,14,19,20] This tumour commonly metastasizes to the axillary lymphnodes and the prognosis is poor than that for the other types. [20.]

Patients present with early breast cancer in the developed world, [19] while patients in our centre and indeed our country commonly present late, with advance disease. [4,9,12,21,22.] This poses a challenge to management. Until about 2 years ago there was no facility for radiotherapy in our centre, and so majority of our patients were managed by surgery, chemotherapy and hormonal manipulation. [13,21]

Surgery was the main form of therapy for almost all the patients. Modified radical mastectomy was performed on those with early disease, while those presenting with advanced disease had simple, toilet mastectomy, or biopsy only, depending on the presentation. Chemotherapy with intravenous cyclophoshamide, methotrxate and 5- fluorouracil (CMF) is the regime used in our centre. This is repeated at 3-4 weekly intervals for 6 courses. This is administered either as adjuvant or neoadjuvant therapy and is similar to the report from Lagos. [14] We do not have facilities for oestrogen receptor assay in our centre like many centres in this country [3,14,21]. All our patients are given tamoxifen, once a histological diagnosis is established irrespective of menstrual status. [20,23] Now that there is a functioning radiotherapy unit in our centre, we expect most of our patients with cancer to benefit.

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