Breast cancer in young women in Ibadan, Nigeria

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Abstract

Objective: This study was designed to determine the clinical and socio economic features of breast cancer in young females aged 40 years and below treated at the Radiotherapy Department of The University College Hospital, Ibadan Nigeria

Methods: Records of female patients treated for breast cancer from 2003 to 2006 were reviewed. Records of patients aged 40 years and below were sorted out for further review. Information not available in the records was collected during follow up visits from the patients.

Results: A total of 763 cases were evaluated out of which 221 (28.96 %) were 40 years and below. Stage 1 disease was diagnosed in 5 (2%) of the patients while 29 (13%) had stage 11 disease. Stages 111 and 1V were diagnosed in 102 (46%) and 85(39%) of the patients respectively. Invasive ductal carcinoma was the predominant histological type diagnosed in 210(95%) of the cases. Only 5(2%) of the patients had positive family history of breast cancer and 189 (85%) were income earners, out of these, 132(70%) had monthly income less than 12,500.00 Nigerian Naira (~100USD). The number of young patients who were married was 166 (75%) but 6 (4%) of the married ones had no children while the rest had at least one child. Sexual dysfunction in form of loss of libido was recorded in 77 (46%) of the married patients. All the patients had primary school education while 188 (85%) had secondary school education or above. The only source of financial support received by all the patients towards their treatment was from relatives.

Conclusion: This study shows that we have a higher proportion of young females with breast cancer in our environment than in developed countries. Most of them present late and majority of the patients have very low income. Physicians should pay serious attention to breast lumps in young females and free health care services for these patients can promote early access to treatment.

Key words Breast cancer, young females

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Introduction

Breast cancer is the commonest female malignancy all over the world including Nigeria. It is more common in the middle and older age groups than in young women. In breast cancer, "Young" refers to women 40 years and below and in the USA, 5% of breast cancer occur in this age group[1] In Australia, it is 6% while in South Korea, it forms 9.6% of female breast cancer[2,3]. The prevailing opinion therefore is that young women do not develop breast cancer due to the low incidence rate compared with older women. In Nigeria there is no data on breast cancer in young females.

Most lumps in young women are benign and physiological leading to low level of suspicion. It is therefore possible for physicians to pay less attention to breast lumps in young women. There is need for a change of attitude because any woman can have breast cancer. Breast lumps in young women should be taken seriously because the diagnosis of breast cancer in this age group is more challenging due to the dense breast tissue making the clinical evaluation of such lumps difficult[4].

The diagnosis of breast cancer in young women has more implications than in the elderly counterparts. The disease in this age group is noted to be diagnosed at more advanced stage, more aggressive, associated with higher mortality, shorter disease free survival and more likely to recur after treatment both loco regionally and at distant sites than in older women[5,6,7,8]. Young women are also faced with more complex issues relating to fertility, raising a family, premature menopause, and continuation of work during and after treatment [9].

The diagnosis and treatment of breast cancer is always long and expensive and same treatment given to both young and older patients namely local (surgery and radiotherapy) and systemic (chemotherapy and hormonal therapy). These have

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economic implications in form of absence from work/business, lack of employment, high cost of treatment and high cost of palliative care. There is also associated psychological impact related to change in body image like loss of breast or scar on breast and negative feelings like sadness, anger, guilt and frustration. Singles may find it difficult to get partners and there could be lack of interest in sexual relationships. These are less problems to older women hence adjustment needed.

Patients and Methods

Records of female patients treated for carcinoma of the breast at the Department of Radiotherapy, University College hospital, Ibadan Nigeria over a 4 year period (January 2003- December 2006) were reviewed. The records of patients aged 40 years and below were sorted out for further study. Information not available in the records was collected during follow up visits. Information sought for included age, educational attainment, marital status, parity, occupation, estimated monthly income, family history of breast / ovarian cancer, stage of disease, histological type, treatment support and sexual dysfunction. The data were analyzed using tables and percentages and the results obtained formed the basis of the discussion.

Results

A total of 763 female breast cancer cases seen at Radiotherapy department at University College Hospital between 2003 and 2006 were reviewed out of which 221 (28.96%) were aged 40 years and below as shown in Table 1.

Table 1: Age grouping of female patients with breast cancer

Year	less than or equal to 40 years	>40 years	Total	Perecentage (less than or equal to 40 years)
2003	60	119	174	33.5
2004	52	131	183	28.4
2005	59	172	231	25.5
2006	50	120	170	29.4
Total	221	542	763	28.96

Table 2 shows the age distribution of young patients. From the table, 128(57.9%) of the patients were within 36-40 years age group while 13 (5.8%) were within 21-25 years age group. From the study, Stage 1 disease was diagnosed in 5 (2%) of the patients while 29 (13%) had stage 11 disease. Stages 111 and 1V were diagnosed in 102 (46%) and 85(39%) of the patients respectively.

Table 2: Age distribution of female patients with breast cancer less than or equal to 40 years

Age (years)	2003	2004	2005	2006	Total	%
21-25	4	3	3	3	13	5.88
26-30	3	4	4	3	14	6.33
31-35	18	15	18	15	66	29.86
36-40	35	30	34	29	128	57.91
Total	60	52	59	50	221	99.98

Patients who presented at stages 111 and 1V of the disease had mastectomy while those with stages 1 and 11 had breast conserving surgery. Invasive ductal carcinoma was the predominant histological type diagnosed in 210 (95%) of the cases while 11 (5%) had other histological types like papillary carcinoma (2), lobular carcinoma (3) and 6 patients had only Fine Needle Aspiration Cytology (FNAC) reported simply as malignant. These 6 patients had mastectomy outside our center but could not come for radiotherapy on time due to lack of funds. They presented with loco regional diseases and distant metastases without the original referral letters with histology reports. FNAC only was feasible to enable them receive palliative treatments. Positive family history of breast cancer was recorded in 5 (2%) of the patients. The number of married patients was 166 (75%) while 44 (20%) were single and 11 (5%) were separated before the onset of the illness. Whereas 6 (4%) of the married ones had no children,

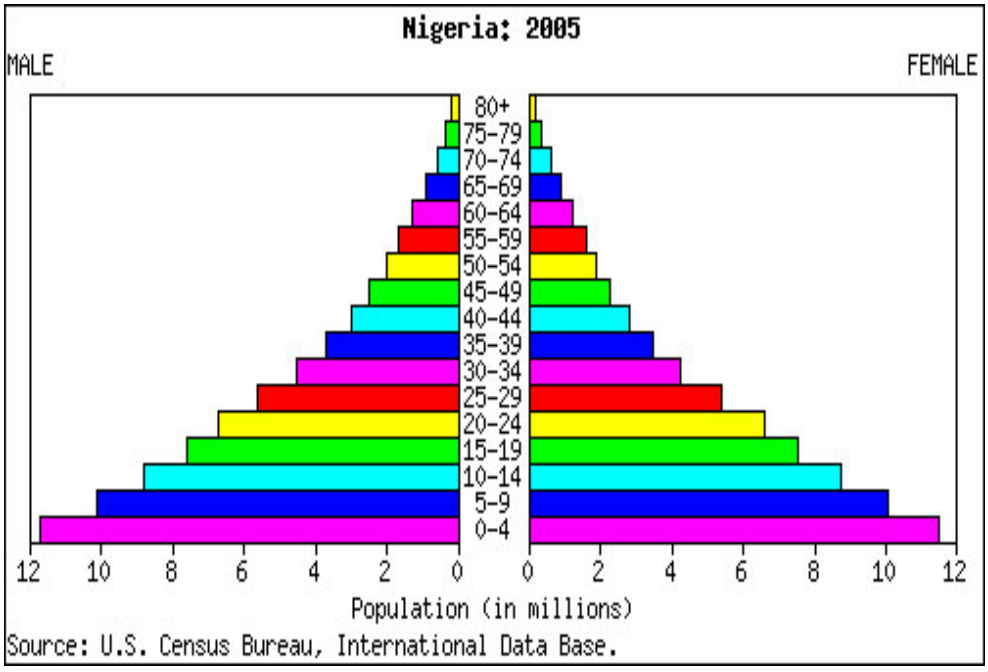
160 (72%) had at least one child. Sexual dysfunction in form of loss of libido was recorded for 77(46%) of the married patients and 3 (1%) patients had breast cancer diagnosed during pregnancy. They all waited till after delivery before treatment. All the 221 patients completed primary education but 44 (20%) had partial secondary school education, 66 (30%) completed secondary school education, 55 (25%) had post secondary (not university) education while 23 (10%) completed university education. In all 188 (85%) of the patients had secondary education or above.

Most of the patients 188 (85%) were involved in income earning activities as traders, fashion designers, clerks, teachers and the professions. The others 33 (15%) made up of housewives, students and unemployed were without income. Self employed patients were 122 (55%) while 66 (30%) were on paid employments Out of the 188 income earners, only 56 (25%) earned estimated monthly income above 12,500 Nigerian Naira (~ 100 USD). Majority 132 (60%) earned monthly income below the above value. The only source of financial support received by all the patients towards their treatment was from relatives. All the self employed patients could not carry out their economic activities during treatment and all the employed ones admitted having difficulties in obtaining permission to obtain treatment.

Discussion

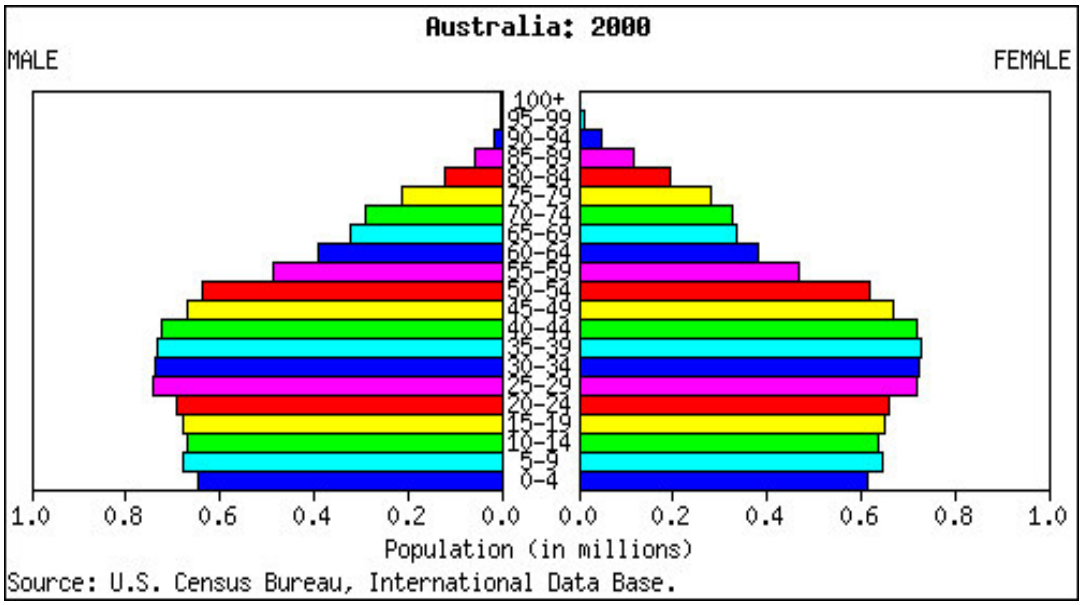
Young females with breast cancer account for 29% of all female breast cancer cases in this study. This proportion is very high compared with 5-10 % reported in the developed countries. This result can give a clue to the pattern of this disease in the general population The reason for this high proportion in our environment is due to the fact that low life expectancy level in Nigeria makes the population age to shift more to the left resulting in a larger percentage of youths and young adults than the elderly as few people are above 70 years as represented in the population pyramid for Nigeria in figure 1[10].

Figure 1 : Population pyramid of Nigeria



The situation is the reverse in the developed countries e.g. Australia (figure 2). Poor nutrition and infections especially at infancy and even in adults common in our environment impair the optimal development of immunity against antigens including cancer cells.

Figure 2: Population pyramid of Australia



The number of patients in the 21-25 age group was 13 representing 6% of the young patients. This confirms the fact that young females in their twenties can have breast cancer hence the need to give serious attention to breast lumps in all females. Unmarried patients formed 20% of the patients. The diagnosis of breast cancer in this group will have additional social problems related to family life. These problems will be less pronounced with elderly patients. A large proportion of the patients (85%) in this study presented with advanced disease.

Late presentation in cancer is common in our environment but this is more pronounced in young patients with breast cancer. This group of patients also present relatively late in advanced countries hence the poorer outcome compared with elderly patients[11]. Majority of the patients (70%) have very low income level (monthly income of less than 100 USD) and treatment support only came from family members. Those that were self employed could not continue with their economic activities during treatment and even those employed had difficulties getting permission to obtain treatment. These can lead to difficulties in having access to proper and timely treatment hence the need for their diagnosis and treatment to be subsidized because presently in Nigeria, patients pay for all treatments from their pockets.

Sexual dysfunction in form of loss of libido was experienced in 46% of the patients. There is need for counseling in such patients. Few patients (2%) had family history of breast cancer in this study. This does not fully support the general notion that breast cancer in this age group is predominantly hereditary[12]. All the patients completed primary education and 85% attended secondary school or above so majority of the patients had some level of literacy. This can make them receptive to breast cancer education with the aim of achieving early presentation, diagnosis and treatment.

Conclusion

In conclusion, this study has shown a significant proportion of young females with breast cancer in our environment than in the developed countries and most present at advanced stages of the disease. Breast cancer education intensified at our secondary and higher institutions can help in creating awareness on this disease. The diagnosis and treatment of these patients should be made free or highly subsidized and there should be job security and employment opportunities for them. Adequate counseling on social issues relating to family life should always be considered by their clinicians.

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