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The Prevalence of Breast Cancer in University Of Calabar Teaching Hospital (UCTH) and General Hospital Calabar (GHC) From 2006-2010.

[1]Gabriel U. Udo-Affah*, [1]Eru M. Eru, [1]Kalu chioma, [1]Kelechi C. Uruakpa, [1]Inyang, I. Joseph.
[1]*Department of Human Anatomy Faculty of Basic Medical Sciences University of Calabar Calabar-Nigeria.*

Abstract: *Breast cancer is the most common cancer occurring in women among all other types of cancer. The incidence in most continents such as Africa varies in region and its cause is not ascertained in Nigeria. WHO estimated the incidence of breast cancer in 2002 for Nigeria to be 90.7/10,000 for males and 100.9/10,000 for females and the mortality rate was 72.2 and 76.0 compared to the incidence of 89.1/100,000 for males and 104/100,000 for males and the mortality rate of 72.2 and 79.6 recorded for Ghana and less figures for United State of America and United Kingdom. The aim of this study was to ascertain the prevalence of breast cancer in Calabar using patients who have been affected with this deadly disease and who visited University of Calabar Teaching Hospital (UCTH) and General Hospital Calabar (GHC) between 2006 and 2010. All data collected were obtained from the health records and information unit of the UCTH and GHC in Cross River State. The result showed that among 162 cases recorded, 138 (80.3%) females and 24 (19.7%) males were affected from 2006-2010; and the incidence of breast cancer occurrence in UCTH and GHC increases as the years increased. This could be attributed to factors such as genetic, reproductive and hormonal, lifestyle and environment, age, preterm pregnancies, obesity and menopause.*

Keywords*: Breast cancer, Prevalence, Age, Sex, Tribe*

I. Introduction

Cancer is a disease that causes changes and proliferation of cells in the body. Some of these cells form lumps or tumour and are named after the part of the body where they originate. Breast cancer is one of the most frequently reported cancers accounting for 22.7% of cancers in Women in Eastern India, Kolkata (Sen et al 2002). Breast cancer was characterized based on regional variation because the incidence was 27% in Algeria and Egypt compared with 15% in sub-Saharan Africa (Parkin et al 2003). In Nigeria, Afolayan 2008 and Ogunbiyi et al 2010 reported that cancer of the breast was second to cancer of the cervix in north western geopolitical zone while in Ibadan breast cancer was the leading malignancy among women, and in north central zone breast cancer was 22.4% of new cases registered of all cancers in women (Afolayan et al 2012).

WHO estimated incidence of cancer in 2002 for Nigeria as 90.7 and 100.9/10,000 for males and females respectively while mortality rates were 72.2 and 76 respectively. This is comparable to 89.7 and 104.1/ 100,000 incidence for males and females and 72.2 and 79.6 crude mortality rates recorded for Ghana but fewer figures were recorded for United Kingdom and United State of America (Fatimah 2009). In the year 2008, United State National Cancer Institute Epidermiology and End Result (SEER) data base estimated 11,958,000 cancer prevalence in the United States (Howlader et al 2011) and American Cancer Society predicted that about 1,690,000 new cases will be diagnosed and 577000 mortality rate will occur in 2012 (Wikipedia).

Breast cancer is one of the leading causes of cancer death in less developed countries. This is partly due to a shift in lifestyle causing increase of occurrence and also partly because of lack of chemical advances to combat the disease for women living in under developed countries. Worldwide trends showed that developed countries going via rapid Societal and Economic challenges change the shift towards lifestyle typical industrialized countries contribute to a rising burden of cancers associated with reproduction, dietary and hormonal risk factors. Incidence of breast cancer has been increasing in most regions of the world but there are huge in-equalities between rich and poor countries. The incidence remained highest in more developed regions but the mortality is much higher in less developed countries due to lack of early detection and access to treatment facilities. This called for an urgent need for cancer control agency to develop effective and affordable approach to the early detection, diagnosis and treatment of breast cancer among women living in less developed countries (Ferlay et al 2013 & Bray et al 2008).

Therefore this study aimed at elucidating the prevalence of breast cancer in Calabar using patients who have been affected with this trend of disease and have visited UCTH and GHC between 2006 and 2010.

II. Materials And Methods

The materials for data collection were obtained from the records and information unit of UCTH and GHC, Cross River State. The materials include hospital folders of breast cancer patient who visited the hospitals between 2006 and 2010, and yearly records containing the number of breast cancer patients. The percentage test method and ANOVA were employed to analyse the data.

III. Result/ Discussion

The total number of cases was 162; 138 patients were admitted in UCTH and 24 patients were admitted in GHC. In 2006, 28 persons were affected with breast cancer (23 females and 5 males). UCTH recorded 23 cases and GHC recorded 5 cases only. 1n 2007, 32 persons were affected (25 females and 7 males); UCTH recorded 26 cases whereas GHC recorded 6 cases. In 2008, 32 cases were recorded (9 males and 23 females); 29 cases recorded in UCTH and 4 recorded in GHC. 32 cases were recorded in 2009 (24 males and 8 females). 29 cases were recorded in UCTH and 3 in GHC. 39 cases of breast cancer was recorded in 2010 (30 females and 9 males); 33 cases was recorded in UCTH and 6 cases of breast cancer was recorded in GHC.

YEAR	NUMBER OF PATIENTS	PERCENTAGE
2006	28	17.3%
2007	32	19.8%
2008	31	19.1%
2009	32	19.8%
2010	39	24.1%
TOTAL	162	100%

Table 1: showing percentage of breast cancer patients between 2006 and 2010.

AGE GROUP	FREQUENCY	PERCENTAGE
2-9	7	4.3%
10-19	6	3.7%
20-29	17	10.5%
30-39	28	17.3%
40-49	50	30.9%
50-59	19	11.7%
60-69	19	11.7%
70-79	9	5.6%
80-89	7	4.3%

Table 2: showing the age group and frequency of incidence in percentage.

SEX	FREQUENCY	PERCENTAGE
FEMALE	109	67.3%
MALE	53	32.7%
TOTAL	162	100%

Table 3: showing the relationship between sex and frequency of incidence.

HOSPITAL	FREQUENCY	PERCENTAGE
GHC	24	14.8%
UCTH	138	85.2%
TOTAL	162	100%

Table 4: showing frequency of incidence admitted in UCTH and GHC.

TRIBE	FREQUENCY	PERCENTAGE
ANNANG	16	9.9%
EJAGHAM/ EKOI	75	46.3%
EFIK	24	14.8%
IBIBIO	26	16.0%
IGBO	14	8.6%
OTHERS	7	4.3%
TOTAL	162	100%

Table 5: showing the relationship between tribe and frequency of incidence of breast cancer.

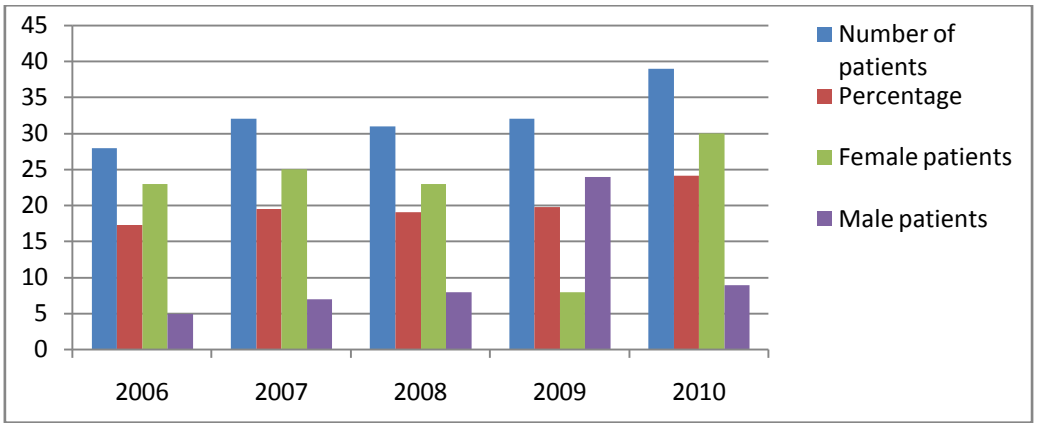

Figure 1: showing number, sex and percentage of affected patients in UCTH and GHC.

Breast is the most prominent superficial structure in the anterior thoracic wall especially in women (Keith et al 1999). It forms a secondary sexual feature of female and is source of nutrition to the neonate; and is rudimentary in males. The shape and size of the breast depend upon genetic, racial and dietary factors. The shape may be conical, hemispherical, pendulous, piriform or thin and flattened (Henry Grey 2008). Breast cancer is a disease that causes abnormal proliferation of cells in the mammary gland and is more often in females. In this study, 162 cases were recorded in both hospitals of which UCTH had the highest records (138) and GHC had 24 records (table 4). The percentage of incidence of breast cancer increases as the year goes by. 2006 was 17.3% of which women had the highest compared to men; in 2007 19.8% was recorded in both hospitals, 2008 19.1% was recorded, 19.8% was also recorded in 2009 and 24.1% was recorded in 2010 (table 1). Throughout the duration of study 138 patients were admitted in UCTH and GHC admitted 24 only. The result also showed that the prevalence of breast cancer is more often in females compared to males (table 3). The age range both children, young people and adults are vulnerable to the disease. Patients between the age of 2-9 had an incidence 0f 4.3%, age group 10-19 had 3.7%, age group 20-29 had 10.5%, age group 30-39 had 17.3%, age group 40-49 had the highest 30.9%, age group 50-59 had11.7%, age group 60- 69 had 11.7%, age group 70-79 had 5.6% while age group 80-89 had 4.3% (table 2). The most affected tribe is Ejagham/ Ekoi (46.3%) followed by Ibibio (16.0%), Efik (14.8%), Annang (9.9%) Igbo (8.6%) and others (4.3%) (table 5).

IV. Conclusion

The prevalence of breast cancer in UCTH and GHC between 2006 and 2010 has increased over the years with a total of 162 cases recorded. It also showed that women were more affected than men but in 2009 males were recorded to have highest incidence. People within the age range of 40-49 had the highest percentage and are prone to breast cancer and Ejagham/ Ekoi tribe were more affected compared to other tribes.

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