INTRODUCTION

Gynecological cancers are among the leading causes of cancer-related deaths worldwide and the distribution and frequency vary from one region to the other. It accounts for about 10% of all cancers diagnosed in women. The proportion of female genital cancers ranges from 31.6 to 35.0% in sub-Saharan Africa and 12.7 to 13.4% in North America. Cervical cancer is the most common pelvic malignancy among women worldwide. In developed countries, the introduction of routine screening and treatment for premalignant lesions of the cervix has led to a dramatic fall in the incidence and mortality of cervical cancer over the past 5 decades. In developing countries like Nigeria, routine cervical cancer screening is rudimentary; hence there is a high rate of cervical cancer. In developed countries, endometrial carcinoma is the commonest gynecological cancer; while in African countries, carcinoma of the cervix has been reported in many series to be the commonest, with most of the patients presenting in late stages of the disease.

Ovarian cancer is the second common female genital cancers and a major cause of death from female genital tract malignancies. About 75% of the patients with ovarian cancer present with advanced stages of the disease due to nonspecific symptoms of the disease. It accounted for 16.3% of the cancers in a study done in Ibadan, Nigeria. In the United Kingdom, it is now the most common malignant tumor.

Age and parity affect the incidence of gynecological cancers. Endometrial and ovarian cancers occur mainly later in reproductive life, while carcinoma of the cervix and choriocarcinoma are seen commonly in pre- or perimenopausal women. With regards to parity, women of high parity have relatively low risk of developing...
endometrial cancer and ovarian cancer; it is known that pregnancy is protective against ovarian cancer, while multiparity is associated with increased risk of development of cervical carcinoma.[12]

This paper seeks to establish a database with regards to the pattern and relative frequencies of gynecological cancers in Ebonyi State. This database will be helpful in combating gynecological cancer menace through actions like health education, screening programs, and appropriate resource allocation.

MATERIALS AND METHODS

The study covered a period of 2 years from 1st January 2012 to 31st December 2013. The case records of all patients admitted into the gynecological ward with suspected gynecological cancer were retrieved from the medical records department. The information on clinical, surgical, and histopathological diagnosis was collated using a proforma. In addition, the type of cancer, age, and parity were noted. Most of the patients had histological diagnosis of gynecological cancers. The cases of choriocarcinoma were diagnosed on clinical features and confirmed by biochemical tests. The data were analyzed using IBM Statistical Package for Social Sciences (SPSS) statistics software version 20 (Chicago Illinois, USA). Chi-square ($\chi^2$) test was employed to examine the significant association between variables where applicable. Statistical significance was set at 0.05.

Ethical approval for the study was obtained from the ethics and research review committee of Federal Teaching Hospital, Abakaliki

Calculation of sample size and sampling method

The prevalence rate of 10.1% was chosen to calculate the minimum sample size for this study based on the prevalence rates of 10.1% reported in Enugu,[6] which has similar sociocultural and demographic characteristics and no such studies have been done in Ebonyi state.

The required sample size for this study was calculated using the following formula:

$$ n = \frac{Z^2 \cdot P \cdot (1 - P)}{d^2} $$

$n$ = the minimum sample size required
$Z$ = the proportion of normal distribution corresponding to the required significance level (5%) which is 1.96
$P$ = the proportion of human immunodeficiency virus (HIV)-infected women with abnormal cervical cytology (10.1%)
$d$ = the relative precision or tolerable error of the estimate from the study which is 5%. He estimate from this study is desired to be within 5% of the actual prevalence with 95% confidence level (5% significance level).

Thus the estimated minimum sample size was 139, but we examined a total of 1,178 case records.

RESULT

During the study period, 1,178 women were admitted into the gynecological ward and 99 had gynecological cancer. Thus, 8.4% of the admissions were for gynecological cancers.

Age distribution [Table 1]

The mean age was 54(4) years. The largest numbers of gynecological cancers occurred in the 5th–6th decades of life; 53.6% of the cancers occurred in these age groups. The commonest gynecological cancers in women under 30 years of age were cervical cancer and choriocarcinoma; none had ovarian, endometrial, and vulva cancers. Cervical carcinoma rose sharply in occurrence from the 4th decade of life, and remained the commonest cancer in all age groups. The age group of women with the highest number of cervical carcinoma was 50–59, while that of those with ovarian cancer was 60–69 age group. None of the women aged 60 years and above had choriocarcinoma [Table 1]. The age in this study was strongly associated with development of gynecological cancer.

Relative frequencies of gynecological cancers [Table 2]

The commonest gynecological cancer in the study was cervical carcinoma, which constituted almost 60.6% of the cases followed by ovarian cancer (19.2%) and endometrial cancer (10.1%). Vulva cancer accounted for 7%, while the least was choriocarcinoma (3%) [Table 2]. Vaginal cancer and leiomyosarcoma were not seen.

Parity distribution [Table 3]

The highest parity was in women with cervical cancer and the lowest in those with ovarian cancer. Endometrial and vulva cancers were also seen among the parous women, while choriocarcinoma were among women of low parity [Table 3].

DISCUSSION

In this study, gynecological cancers account for 8.4% of gynecological admissions. This is high compared to 4.18–4.7% reported in Port Harcourt and Zaria in Nigeria[6,13] and 2.8% reported in Ghana.[14] The largest numbers of gynecological cancers occurred in the 40–69 year group and is comparable to reports from Enugu and Port Harcourt.[6,13] Cervical cancers accounted for majority of the female genital
In this study, endometrial carcinoma accounted for 10.1% of gynecological cancers. It is more common than choriocarcinoma which accounted for 3%, this is consistent with the findings of Nkyekyer in Ghana[14] and Kyari et al., in Maiduguri. In Ibadan, Nigeria, choriocarcinoma was found to be the second most common malignant tumor of female genital tract. Choriocarcinoma is relatively a disease of younger women as shown in this study. This is not surprising since, being a disease associated with pregnancy, it is more likely to occur in active reproductive life.

The incidence of vulval carcinoma in this study was 7.1%, which is similar to a study done in Maiduguri and higher than 1.5% reported in Uyo[19] and 3.6% in Enugu. The data presented in this study may not be a representative of community prevalence rates. Another limitation of this study was lack of follow-up and poor documentation of vital information. Data were scanty on management outcome and records of deaths from these gynecological malignancies.

CONCLUSION

From our study we conclude that cervix carcinoma is the most common female genital tract malignancy in Ebonyi, southeast Nigeria, followed by ovarian carcinoma. The importance of education and public enlightenment on routine screening and treatment of premalignant lesions of female genital tract malignancies cannot be overemphasized. Hospital facilities for screening and regular gynecological examinations and well-defined follow-up surveillance system can change disease morbidity and mortality.

REFERENCES


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