

# The Frequency and Pattern of Female Genital Tract Malignancies at the University of Nigeria Teaching Hospital, Enugu, Nigeria

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## Abstract

**Background:** Female genital tract malignancy is common in our low resource setting. Options now exist for prevention, detection, treatment, and palliative care for the wide spectrum of female genital tract malignancies. Women will continue to die from these cancers unless health professionals and civil society adopt means to control female genital tract cancers in our low resource setting. **Aim:** The objective was to determine the frequency and patterns of female genital tract malignancy at the University of Nigeria Teaching Hospital (UNTH), Enugu, Nigeria. **Materials and Methods:** A 6-year retrospective study of female genital tract malignancies was conducted at the UNTH, Enugu. The case notes of patients admitted for female genital tract malignancy between January 1, 2003 and December 31, 2008 were retrieved from the medical records and cancer registry of the University of Nigeria Teaching Hospital, Enugu and relevant data were extracted. The data were analyzed using SPSS version 12 (SPSS Inc., Chicago, IL, USA) and the results expressed in descriptive statistics by simple percentages. **Results:** One hundred and sixty six (166) cases of genital malignancies were recorded during the 6-year review. Majority of the patients were in the fifth and sixth decades of life. Cancer of the cervix accounted for 66.3% (110/166) followed by ovarian cancer 21.1% (35/166). The other tumors seen during the period were tumors involving corpus uteri 9% (15/166) and vulva 3.6% (6/166). Tumors of fallopian tube and vagina were not seen during the study period. **Conclusion:** Despite the preventable nature of cancer of cervix, it remained the most common female genital tract malignancy in Enugu, South-East Nigeria. In our low resource setting in the developing countries, education and public enlightenment on the importance of routine screening and treatment of premalignant lesions of the cervix are necessary tools to reduce the incidence and mortality of cervical cancer.

**Keywords:** Enugu-Nigeria, Female, Frequency, Genital malignancies, Palliative care, Prevention

## Introduction

Female genital tract malignancies have worldwide distribution, but vary from one region to another. The acquired immune deficiency syndrome has considerably altered the pattern of female genital cancers.<sup>[1]</sup>

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 five decades.<sup>[2]</sup>

In developing countries, routine cervical cancer screening is yet to be adopted due to discrepant burden in our low resource settings namely lack of awareness of cervical cancer among the population, health care providers and policy makers, absence or poor quality of screening programs, limited access to health care services and lack of functional referral systems.<sup>[3]</sup> However, not all women that need cervical screening programs benefit from such exercise; hence there is a high rate of cervical cancer in Nigeria.<sup>[4]</sup> Cervical cancer

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DOI:  
10.4103/2141-9248.117938

is the most common female genital cancer in the developing countries.<sup>[5]</sup> Its distribution and presentation is unique in the developing countries because most cases present at the advanced stages of the disease.<sup>[5]</sup> In Nigeria, it is the most common cancer of the female genital tract accounting for 74.4% of female cancers in Benin City, 73.2% in Ibadan, 73.1% in Ilorin, and 73.6% in Port Harcourt.<sup>[6,7]</sup> It is the second most common malignancy after breast cancer with a relative frequency of 23.2%.<sup>[8]</sup> This incidence could be reduced with effective prevention by organized screening services and public enlightenment.

Ovarian cancer is 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 and failure to detect the tumor early, disadvantaged position of the ovary, and absence of screening programs in our environment.<sup>[9]</sup>

In Nigeria there is paucity of information on female genital cancer despite the high incidence and late presentation of the female genital malignancies in our environment. Studies from various centers in Nigeria showed a decrease in percentage of cervical cancer from 73.1% to 66.3%.<sup>[10]</sup> The reason for this drop in percentage could be attributed to introduction of routine screening in some centers in Nigeria. This study aims at evaluating the relative frequencies and pattern of female genital tract malignancies in Enugu, Nigeria.

### Materials and Methods

A 6-year retrospective study of the frequency and patterns of female genital malignancies in Enugu, Nigeria.

The case notes of patients admitted for female genital tract malignancy between January 1, 2003 and December 31, 2008 were retrieved from the medical records department and cancer registry of the UNTH Enugu and relevant data were extracted. The medical records were reviewed by trained staff using preestablished and piloted data extraction forms. The data extracted included socio demographic characteristics (age, parity, marital status), clinical symptoms, stage, histopathology type of cancer, tumor site, and diagnosis. The data were analyzed using SPSS version 12 (SPSS Inc., Chicago, IL, USA) and the results expressed in descriptive statistics by simple percentages.

### Results

There were 1647 gynecological admissions during the study period out of which 10.1% (166/1647) were cases of genital cancers. The age distribution is shown in Table 1. The cervix uteri was the most common site occurring in 66.3% (110/166) women, followed by ovarian cancer 21.1% (35/166), Choriocarcinoma 4.2% (7/166), and endometrial cancer

4.8% (8/166). Among the seven cases of choriocarcinoma, five were chorioepithelioma and two were malignant mole. Vulva malignancies accounted for 3.6% (6/166) of the cases as shown in Table 2. Squamous cell cancer was the most common histological variety of cervical cancer.

The cervical cancers were more common in the fifth decade

**Table 1: Age distribution of individual malignant tumor of female genital tract, n =166**

Age	Cervix	Ovary	Uterus	Value
21-30	1	5	3	0
31-40	12	4	3	0
41-50	27	10	0	1
51-60	32	8	3	1
61-70	25	7	4	3
71-80	13	1	2	1
	110	35	15	6

**Table 2: Site distribution of malignant tumors of female genital tract**

Site of tumor	No. of cases	Percentage
Cervix	110	66.3
Ovary	35	21.1
Corpus uteri		
Choriocarcinoma	7	4.2
Endometrium	8	4.8
Vulva	6	3.6
Fallopian tube	0	0
Vagina	0	0
Total	166	100

**Table 3: Age of distribution of malignant tumors of the genital tract**

Age	No. of cases	Percentage
21-30	9	5.4
31-40	19	11.5
41-50	38	22.9
51-60	44	26.5
61-70	38	22.9
71-80	17	10.2
Unspecified	1	0.6
	166	100

**Table 4: Distribution with respect to parity among the women with cancers of genital tract**

Diagnosis	Para 0	Para 1	Para 2-4	Para 5 and above	Total
Cervical cancer	4	3	15	88	110
Ovarian cancer	12	4	8	11	35
Endometrial cancer	2	3	0	2	8
Choriocarcinoma	2	2	2	2	7
Vulval cancer	0	1	3	2	6
	20	13	28	105	166

of life while ovarian tumors were commoner in the fourth decade of life as shown in Table 3. No cases of cancer of the vagina and fallopian tube were seen in the study. Table 4 shows that cervical cancer was commoner among parous women while ovarian cancer was more common among women of low parity.

## Discussion

Cervical cancers accounted for majority of the female genital cancers in this study. Carcinoma of uterine cervix accounted for 66.3%.<sup>[9]</sup> This is consistent with results from a similar study in Port Harcourt, Nigeria where cervical cancer constituted 65% of primary female genital cancers.<sup>[10]</sup>

Megafu in 1979 reported that cancer of the cervix accounted for 73.1% of all genital tract cancers from this center which is slightly higher than what was found in this study.<sup>[11]</sup> Pindiga, *et al.* in a study done in Maiduguri, Nigeria, reported that cancer of cervix accounted for 72.6% of all female genital cancers.<sup>[12]</sup> A similar study at the University College Hospital Ibadan, Nigeria, shows that carcinoma of the cervix is the most common female genital malignancy in Nigeria.<sup>[13]</sup>

This study revealed an increasing incidence of carcinoma of the cervix with increasing parity [Table 4]. This agrees with results of previous studies from this center.<sup>[11,14]</sup> The pattern of genital tract malignancy in this study differs from the pattern in developed countries, where ovarian cancer has taken the leading position mainly due to the effects of screening and treatment of premalignant lesions of the cervix which has led to a dramatic decrease in the incidence of cervical cancers.<sup>[15]</sup> The number 1 position of carcinoma of the cervix in this study indicates that the effect of cervical cancer screening and treatment of premalignant lesions of the cervix may not be obtainable in Nigeria. This is quite understandable with the absence of a national cervical cancer screening program in Nigeria. Cervical cancer screening programs in Nigeria are organized sporadically by nongovernmental organizations, and these spot screening programs may not be able to impact any significant reduction in the burden of cervical cancer in Nigeria. Furthermore, opportunistic screening for cervical cancer as practiced in our center has been shown not to impact on the population incidence of cervical cancer.<sup>[16]</sup> Opportunistic screening as practiced in our center involves screening all women who come for gynecological consultation in the hospital after proper counseling and obtaining informed consent.

The late presentation of female genital malignancies at the advanced stages of the disease may be as a result of low level of awareness in our low resource setting and the perception of the general public not to seek for medical advice unless necessary, lack of health care providers and policy makers, absence or poor quality of screening programs, limited access to health care services, and lack of functional referral systems.<sup>[3]</sup> The

peak age incidence of carcinoma of cervix in this study was in the fifth decade of life. This finding is in agreement with previous studies in other regions of Nigeria.<sup>[12,13]</sup>

Ovarian cancer is the second most common female genital cancer in this study accounting for 21.1% of the cases, which is in contrast to an earlier study done in Enugu that reported the incidence to be 2.66%.<sup>[11]</sup> The rising incidence of ovarian cancer may not be unassociated with a reduction in the family sizes of most families as pregnancy and breast feeding are known to protect against ovarian cancers.<sup>[15,17]</sup> Secondly, there is little awareness about the nonspecific symptoms of ovarian cancer.<sup>[17]</sup> Diagnosis of ovarian cancer still poses a great challenge because of the intraabdominal disadvantaged position of the ovary leading to late presentation. There is no standard screening technique for early diagnosis of ovarian cancer.<sup>[17]</sup>

In Ibadan, Nigeria, choriocarcinoma was found to be the second most common malignant tumor of female genital tract,<sup>[4]</sup> but it accounted for 4.2% of the cases in this study which is similar to the studies done in Maiduguri.<sup>[12,18]</sup> In Uyo South-South Nigeria the incidence of vulval cancer was found to be 1.5%,<sup>[19]</sup> which is lower than the incidence in this study (3.6%).

The 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

Carcinoma of the cervix is the most common female genital tract malignancy in Enugu, South East, Nigeria. Options now exist for prevention, detection, treatment, and palliative care for the wide spectrum of female genital tract malignancies. However, in our low resource setting women cannot avail these options.<sup>[20]</sup> In view of this, the importance of education and public enlightenment on routine screening and treatment of premalignant lesions of female genital tract malignancies is paramount.

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**How to cite this article:** Okeke TC, Onah N, Ikeako LC, Ezenyeaku C. The frequency and pattern of female genital tract malignancies at the University of Nigeria Teaching Hospital, Enugu, Nigeria. *Ann Med Health Sci Res* 2013;3:345-8.

**Source of Support:** Nil. **Conflict of Interest:** None declared.