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A Review of Gynaecological Malignancies in a Tertiary Hospital in the South-South of Nigeria.

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ABSTRACT

Background: Gynaecological cancers constitute a major public health problem and are a major cause of morbidity and mortality worldwide. These cancers have diverse patterns of distribution worldwide, with ethnic/racial and environmental differences, and presentation variation. The prevalence of the various cancers in the group vary considerably from country to country, however worldwide cancer of the cervix is the commonest, responsible for 80% of gynaecological cancers in the developing countries.

Aim: To review the gynaecological malignancies in a tertiary hospital in south-south Nigeria.

Methodology: This was a 4-year cross-sectional retrospective study conducted in the obstetrics and gynaecology department of the University of Port Harcourt Teaching Hospital. Information were retrieved from the case notes of patients. Data analysis was done using SPSS version 23.

Results: There were a total of 2414 gynaecological admissions for the period under review, with 5.26% of them genital tract malignancies. The age range was 20-77 years with a mean age of 51.6 years. The mean parity was 4.8±2.3. There were 30 deaths in total during the study period, of which 24 (80%) were due to gynaecological cancers. In the order of occurrence cervical cancer was the most prevalent, accounting for (52%), ovarian cancer (18.2%), choriocarcinoma (15%), endometrial cancer (9.4%), vaginal cancer (3.1%) and vulval cancer (2.3%). Late presentation with stage 2-4 disease was 85%.

Conclusion: The study revealed that gynaecological cancers contributed to 5.26% of gynaecological admissions and 80% gynaecological deaths. With screening, if available, and high index of suspicion these gynaecological cancers are likely to be diagnosed at an earlier disease stage and appropriate treatment would mitigate the morbidity and mortality, with improvements in the quality of life of the sufferers.

INTRODUCTION

Gynaecological cancers are a group of different malignancies of the female genital tract and include cervical, endometrial, ovarian, vaginal and vulval cancers, as well as choriocarcinoma. They constitute a major public health problem and are a major cause of morbidity and mortality worldwide.[1-,3] Gynaecological malignancies have a diverse pattern of distribution worldwide, with ethnic/racial and environmental differences, and presentation variation. Their prevalences vary considerably from country to country, but worldwide cancer of the cervix is the commonest, accounting for eighty percent of gynaecological cancers in developing countries.[3-5] Cervical cancer is second only to breast cancer as the leading cancer cause of death in sub-Saharan African women. Most patients with cervical cancer present late when palliative, instead of curative, measures are put in place, making mean survival rate low and death from cervical cancer inevitable. Ovarian cancer is the most prevalent of gynaecological cancers in developed countries where organized screening has reduced the incidence and mortality of cervical cancer.[5-8]

Poor knowledge about the cancers and poor health seeking behaviour of the patients add to the burden of the disease[4]. Methods of optimal screening for most of the gynaecological malignancies are still being investigated and cervical cancer is the only gynaecological cancer for which a screening modality is widely accepted and recommended to women[4]. Papanicolaou smear however is cost intensive and requires skilled manpower and infrastructure.[2,3] No modality has been shown to be an effective screening method for ovarian cancer, thus prevention requires further improvement in the efficiency of the available screening methods.

Cervical cancer has the highest case fatality ratio of all the gynaecological malignancies[3]. Endometrial, vulval and vaginal cancers are usually cancers of elderly women, thereby raising the mortality significantly. Majority of ovarian malignant tumours are of epithelial origin while squamous cell carcinoma is the commonest for cervical and vulval cancers.[3-5] Adenocarcinoma is the prominent histologic type of the endometrial cancers. [3-4]

Cancer registries reveal that the majority of cancers are seen at advanced stages which decreases the chance of survival even after treatment. Prevention, early detection and treatment, and good health-seeking behaviour of patients with these cancers need more attention. Knowledge and skills development in the above areas need to be enhanced. Diagnostic delay is uncommon in endometrial cancer as perimenopausal or postmenopausal bleeding is viewed as ominous by both the patient and the physician, and diagnosis can easily be made by outpatient endometrial biopsy.

Age and parity affect the incidence of gynaecological malignancies. Vulval and vaginal cancers are not commonly seen[1-3]. A realistic estimate of the incidence and prevalence of gynaecological cancers is lacking due to the non-availability of adequate data, poor recording systems, poor referral systems, lack of cancer awareness, poor health education and inaccurate death certification. Research has been directed towards determining cancer aetiology, preventive strategy and optimum treatment. Therefore, it is important to establish the pattern of distribution of cancers of the female genital tract in order to set priorities for research, management and policy making.

Despite the high burden of gynaecological malignancies in our environment, with their significant contribution to morbidity and mortality, there is a problem of lack of statistical estimates due to the paucity of data. At the University of Port Harcourt Teaching Hospital (UPTH) there has not been a previously published study that compared the patterns of the various gynaecological malignancies. Therefore, this study will help to increase knowledge of the subject matter and provide baseline data for future studies and analyses. This would go a long way to benefitting gynaecological cancer sufferers, as well as to improving health planning and clinical practice.

The aims of the study are to determine the patterns of distribution and the clinico-pathologic presentations of gynaecological malignancies at the UPTH.

METHODOLOGY

This retrospective study was conducted in the department of Obstetrics and Gynaecology of the UPTH, which is a tertiary hospital in the south-south of Nigeria. All the patients admitted into the gynaecological ward from January, 2013 to December, 2016 with histologically proven genital tract malignancy were included in the study. Histologically proven cases of genital tract malignancies were 141, but only folders of 127 women were retrieved from the records department, giving a case notes retrieval rate of 90%. Cases were identified from gynaecological ward admission/discharge records, accident and emergency records, gynaecology theatre records and histopathology records. Information extracted included age, parity, marital status, clinical presentation, anatomic area of the disease, histologic type and stage of disease. Data obtained were entered into a personal computer and analysed with the Statistical Package for Social Sciences (SPSS) software, version 23. Absolute numbers and simple percentages were used to describe categorical variables. Similarly, quantitative variables were described using measures of central tendency (mean and median) and measures of dispersion (range and standard deviation) as appropriate.

RESULTS

There were a total of 2414 gynaecological admissions during the study period and 127 cases (with retrieved case notes) were genital tract malignancies. There were 30 deaths of which 24 were due to gynaecological cancers. Using only those with retrieved case notes, gynaecological cancers accounted for 5.26% of admissions and 80% of gynaecological deaths. The most frequent genital tract cancer was that of the uterine cervix (Figure 1), accounting for 52%, followed by ovary (18.2%), choriocarcinoma (15%) and endometrium (9.4%). Vaginal and vulval cancers were the least common, accounting for 3.1% and 2.3% respectively.

The age range for gynaecological malignancies was between 20 and 77 years, with a mean age of 51.6 years (Table 1). Those 60 years and above contributed the highest with 33%. The peak age incidence was above 60 years for cervical and ovarian cancers. This was followed by the 40-49 and 30-39 years age ranges for cervical cancer and ovarian cancer respectively. The peak incidence for choriocarcinoma was in the 30-39 years age range. Gynaecological cancers were least common in those below 30 years of age.

The parity range was from 0-10 (Table 2). The mean parity was 4.8±2.3. The mean parity for cervical cancer was 5.8±2.0, while for ovarian cancer and choriocarcinoma the mean parities were 3.5±1.8 and 3.3±2.6 respectively. The grandmultiparous women accounted for 52.7% of gynaecological cancers, followed by the Para 2-4 bracket which accounted for 38.6%.

Abnormal vaginal bleeding, abnormal vaginal discharge and postcoital bleeding were the commonest complaints in patients with cervical cancer (Table 3). Abdominal pain, abdominal mass and abdominal distension were the commonest presentations in ovarian cancer. For choriocarcinoma abnormal vaginal bleeding and abdominal mass were the commonest features.

Patients presenting with stages 2-4 diseases accounted for 85% of gynaecological cancer sufferers in this study, while 15% presented with stage 1 disease (Table 4).

Squamous cell carcinoma accounted for 86.4% of cervical cancers while adenocarcinoma accounted for 65.2% of ovarian cancers (Table 5). The cases of vulval and vaginal cancers were those of squamous cell carcinoma.

Table 1: Types of gynaecological malignancies in UPTH

Site	Frequency	Percentage (%)
Cervix	66	52
Ovary	23	18.2
Choriocarcinoma	19	15
Endometrium	12	9.4
Vagina	4	3.1
Vulva	3	2.3
Total	***127***	***100.0***

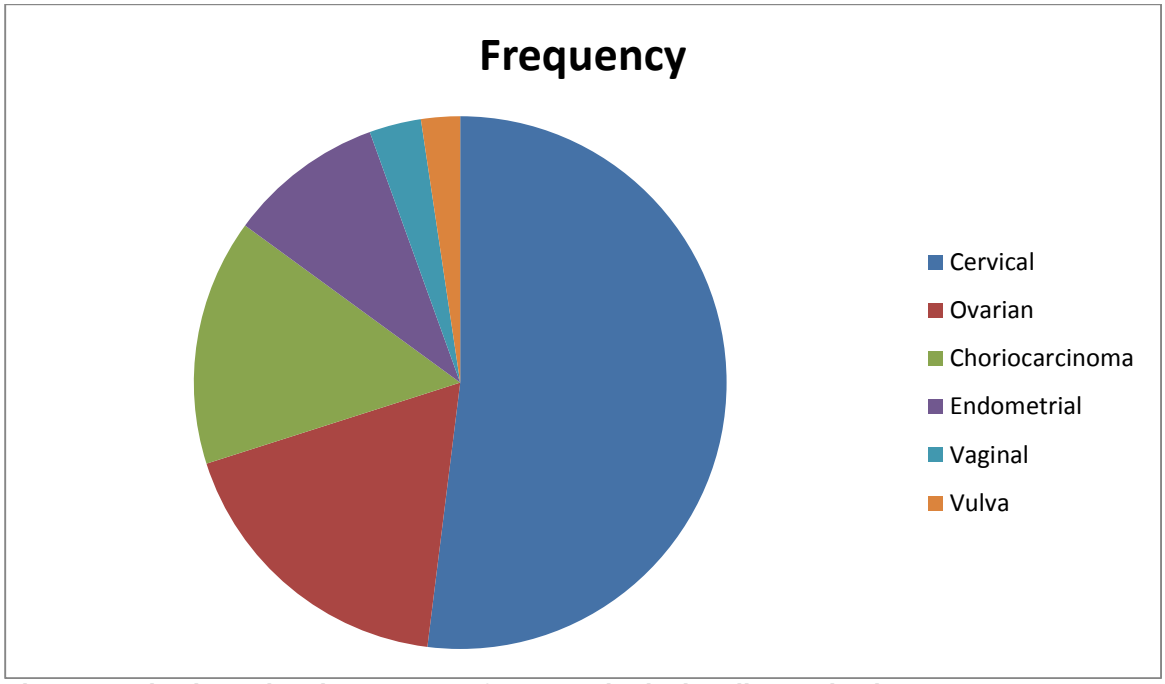

Figure 1. Pie chart showing pattern of gynaecological malignancies in UPTH

Table 2: Age Distribution of Gynaecological Cancers

Age	Cervix	Ovary	Choriocarcinoma	Endometrium	Vagina	Vulva	Total	%
<30	2	1	4	0	0	0	7	5.5
30-39	5	6	12	3	0	0	26	20.5
40-49	17	4	2	6	0	0	29	22.8
50-59	15	4	1	0	2	1	23	18.2
≥60	27	8	0	3	2	2	42	33
Total	*66*	*23*	*19*	*12*	*4*	*3*	*127*	*100*
Range	25-77	27-75	20-52	40-69	70-75	60	20-77	
Mean	54.2	51.5	33.4	60.0	72.5	60	51.6	

Table 3: Parity Distribution of Gynaecological Cancers.

Parity	Cervix	Ovary	Choriocarcinoma	Endometrium	Vagina	Vulva	Total	%
Para 0	0	0	0	2	0	0	2	1.6
Para 1	0	3	3	3	0	0	9	7.1
Para 2-4	18	14	11	4	1	1	49	38.6
≥ Para 5	48	6	5	3	3	2	67	52.7
Total	*66*	*23*	*19*	*12*	*4*	*3*	*127*	*100*
Range	2-10	1-7	0-10	2-8	2-7	6	0-10	
Mean	5.8	3.5	3.3	5.0	4.5	6	4.8	

Table 4: Clinical Presentation of Gynaecological Cancers.

Presenting symptoms	Cervix	Ovary	Choriocarcinoma	Endometrium	Vagina	Vulva
Abnormal vaginal bleeding	53	7	19	12	7	3
Abdominal/waist pain	6	21	6	0	0	0
Weight loss	25	19	14	7	2	0
Abdominal mass	12	24	16	8	3	0
Abdominal distension	4	20	7	2	0	0
Vaginal discharge	45	6	1	5	4	3
Gastrointestinal upset	11	19	4	0	1	0
Post-menopausal /post-coital bleeding	33	7	3	2	2	2

NOTE; Some patients had multiple symptoms.

Table 5: Clinical Stage of Gynaecological Cancers.

Stage	Cervix	Ovary	Choriocarcinoma	Endometrium	Vagina	Vulva	Total	%
1	9	0	8	2	0	0	19	15
2	23	15	5	5	0	2	50	39.4
3	32	7	0	4	2	1	46	36.2
4	2	1	5	1	2	0	11	8.7
Unknown	0	0	1	0	0	0	1	0.7
Total	*66*	*23*	*19*	*12*	*4*	*3*	*127*	*100.0*

Table 6: Histologic Types of Gynaecological Cancers.

Types	Cervix	Ovary	Choriocarcinoma	Endometrium	Vagina	Vulva	Total	%
Adenocarcinoma	0	19	0	8	0	0	27	21.1
Choriocarcinoma	0	0	19	0	0	0	19	15
Clear cell carcinoma	2	0	0	0	0	0	2	1.6
Cyst-adenocarcinoma	0	2	0	0	0	0	2	1.6
Endocervical adenocarcinoma	1	0	0	0	0	0	1	0.8
Keratinized squamous cell carcinoma	6	0	0	0	0	0	6	4.7
Squamous cell carcinoma	57	0	0	0	4	3	64	50.4
Yolk-sac tumour	0	2	0	0	0	0	2	1.6
Unknown	0	0	0	4	0	0	4	3.2
Total	***66***	***23***	***19***	***12***	***4***	***3***	***127***	***100***

DISCUSSION

Gynaecological cancers accounted for 5.26% of gynaecological admissions. This is similar to 2.8% and 4.7% reported by Nkyeker and Briggs respectively[1,2], but less than 11.5% reported by Yakasai in Kano.[3] It accounted for 80% of gynaecological deaths. The pattern of gynaecological malignancies is different in various geographical areas.[4]

Cervical cancer is one of the leading cancers in women worldwide, second only to breast cancer; 80% of new cases of cervical cancer occur in developing countries.[5] Cervical cancer being the commonest gynaecological cancer in this study, is consistent with reports from Ghana and Northern Nigeria.[1,2] The proportion of cervical cancer (52%) in this study is comparable to 57.8%, 62.3% and 70.5% reported in Ghana, Ilorin and Maiduguri respectively[1,6,7].

The position of ovarian cancer as the second commonest gynaecological cancer is comparable with reports from Maiduguri, Zaria, Port Harcourt and Ghana.[1,2,7,8] However, the proportion of 18.2% for ovarian cancer in this study is lower than the 30.5% reported in Kano.[3] This is probably due to higher population of the city of Kano, coupled with the fact that Kano is served by one tertiary hospital compared to Port Harcourt where there are two tertiary hospitals covering a lesser-populated city. In a Pakistani study by Jamal et al ovarian tumours were the most frequent (42.4%) of all gynaecological cancers, followed by cervical cancer[9]. This may be due to better pre-invasive cervical cancer screening and treatment in Pakistan compared to Nigeria. Choriocarcinoma was noted to be more common than endometrial cancer and this is similar to a study in Abakaliki,[8] but different from findings in Ghana and Maiduguri.[1,7]

The mean age at presentation of gynaecological cancers was 51.6 years. The mean age for cervical cancer was 54.2 years, while that of choriocarcinoma was 33.4 years. The mean age for vaginal cancer was 72.5 years. The mean age for cervical cancer was comparable to 50.3 years and 52 years, but higher than 42 years and 47 years reported elsewhere, and this may be due to reduced girl child education and early marriage.[8-14] Choriocarcinoma, a gestational trophoblastic disease, is a disease of relatively younger women and this is expected as it is a disease associated with pregnancy and it is more likely to occur in actively reproductive women.

Though gynaecological malignancies are cancers of the reproductive tract there was no case found or documented to be associated with an ongoing pregnancy during the study period.

The mean parity of 4.8±2.3 for gynaecological cancers is comparable to those observed in similar studies.[10,11] The higher mean parity for women with cervical cancer compared to ovarian cancer is consistent with reports of other studies.[4,7,11]

Many of the patients had multiple symptoms. Abnormal vaginal bleeding, abnormal vaginal discharge and postcoital bleeding were the commonest symptoms in women with cervical cancer. These are classical symptoms of cervical cancer.[11,18-20] For ovarian cancer abdominal pain, abdominal mass and abdominal distension were the commonest symptoms, and these are not different from reports from similar studies.[21,22]

The stage distribution of cervical cancer in our centre conformed with what obtained in other developing countries as 85% presented with stages 2-4 diseases due to late presentation to the hospital.[12,14,19] Hence, prognosis was generally poor. Stage 3 cervical cancer was the most common and was similar to that reported in Kumasi.[12]

Most of the cases of cervical cancer were squamous cell carcinoma and this was comparable to figures from Port Harcourt, Ilorin, Zaria, Maiduguri and Lagos.[15-17,23,24] However, most of the ovarian cancers were adenocarcinomas (82.6%), and was similar to 88.1% gotten in India.[25,26]

CONCLUSION

In conclusion, gynaecological malignancies are the commonest cause of gynaecological deaths at the UPTH during the study period. Cervical cancer is the commonest gynaecological cancer in Port Harcourt and indeed the whole of Nigeria. Late presentation, absence of tracking of referrals and poorly equipped gynaecological cancer units were some of the previously identified problems affecting treatment outcome of gynaecological cancers. These problems can be reduced through sustained health education and awareness creation. Availability of preventive health services and improved women's social status will go a long way to improving treatment outcomes of these cancers.

It is recommended that a subsidized national screening programme for all women for pre-invasive cervical lesions and human papilloma virus vaccination for all girls aged 9-25 years be instituted. Creation of awareness for symptoms of genital tract malignancies will also help in bringing about early presentation of cases. Introduction of cancer registries would be of help in data collation. Also, training of gynaecologists in gynaecological oncology will improve treatment outcome and impact positively on the quality of life and prognosis of patients. Availability of radiotherapy services in more centres would help to improve accessibility and reduce waiting time in commencing treatment. Essentially, increased political will and increased budgetary allocation to the health sector will probably help in mitigating these challenges with respect to the aforementioned services.

Conflict of interest:

There was no conflict of interest.

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