



Research Paper

A Multicentre Review of Gynaecological Cancer Services in the South-South and South-East Regions of Nigeria

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Abstract

Background: *With increasing life expectancy, there is a global increase in the prevalence of gynaecological cancer, worst among developing countries, including Nigeria. Thus, an appraisal of institutional readiness in managing these malignancies is necessary in our sub region.*

Objectives: *To review prevalent gynecological cancers and regional institutional readiness to provide optimal oncological services in the South-south and South-east of Nigeria.*

Material and Methods: *An electronic literature search of all articles published on gynaecological oncology practice in the South-south and South-East regions of Nigeria between 1984 and 2019 was conducted using High wire, Google, Google scholar, PubMed, Hinari, Web of Science, and Springer Link. All relevant peer-reviewed articles and publications were identified, retrieved, and reviewed. A review of cancer registries and annual reports from some of the third-level hospitals in the region was conducted, supplemented by telephone interviews with practicing consultants from the various institutions. Data was collected in a pre-structured spreadsheet and analyzed with the Statistical Package for Social Science (SPSS 25.0).*

Results: *Cervical cancer (55%), ovarian cancer (20.9%), and endometrial cancer (13.7%) were the most common gynaecologic cancers. The most common age range was 40-59 years (48.8%). Half of the centres surveyed had dedicated cancer units, 25% had clinical oncologists, and a quarter had pathologists with special interest in gynaecological cancers. There was no functional magnetic resonance imaging machine in any of the centres, and only 12.5% had preventive oncology units. In half of the centres, immunochemistry and tumour markers were available. Radiotherapy (teletherapy) was available in only one (12.5%) of the epileptic centres.*

Conclusion: *Gynaecological oncology practice is largely suboptimal due to a lack of support facilities and personnel, as well as a lack of political will. Efforts should be intensified to identify these challenges and to proffer potential solutions that will aid in improving the health of our women.*

Keywords: *Gynaecological cancer, Care, Services, Challenges, South-south, South-east, Nigeria.*

Introduction

The global incidence of gynaecological cancers is increasing, owing largely to increased life expectancy and improved detection of precancerous/cancerous lesions with technological advancement. Gynecological cancers are one of the leading causes of cancer-related deaths worldwide, particularly in developing countries where routine screening is either non-existent or epileptic, resulting in late presentation in advanced stages and unacceptably high mortality rates.

Religious/cultural beliefs, poverty, ignorance, and illiteracy may also play a role.^{1,2,3,4}

The Global cancer observatory data of 2020 for Nigeria ranks breast cancer as the commonest followed by cervical cancer with gynaecological cancers contributing to about 16.8% of all malignancies in the country.⁵ However, the practice in Nigeria puts breast cancer in the purview of the general surgeon while all other gynaecological cancers are seen by the Gynaecologist.

This data brings to light the burden of gynaecological cancers in relation to others in the Nation and the worrisome observation that cervical cancer, a largely preventable cancer still takes a toll on most of our women in the country as is the case in most developing countries.^{6,7,8}

This have been attributed to lack of organized screening strategies, lack of political will on the part of government to declare it a public health concern, poor health seeking behaviour, low socio-economic status of patients, high risk sexual behaviours and the scourge of HIV and immunosuppressive illnesses.⁹

With the increasing documentation of gynaecological cancers in developing countries, it is reasonable to expect that efforts at cancer screening and management should be scaled up to meet the growing demand for care. Unfortunately, barriers to these efforts appear to persist, and a significant unmet need for funding for gynaecological cancer care persists in developing countries. A review of the data from the South-

south and South-east regions of Nigeria indicate that the spectrum of gynaecological cancers is largely the same: cervix, ovarian, endometrium, vulva, vagina, choriocarcinoma and absence of fallopian tube cancers in the region.¹⁰⁻¹⁵

Gynaecological cancer management requires collaboration between the primary, secondary, and tertiary levels of care. Data demonstrating the prevalence and epidemiological spread are mostly institutional from teaching hospitals, which are usually the last point of call for patients, and thus may only be a tip of the iceberg, necessitating the need for community-based studies. The question is, what is available in Nigeria's south-south and south-east regions, is there an increase, or is the incidence the same? Because of a lack of data and established cancer registries, the question is difficult to answer

Material and Methods

An electronic literature search of all articles published on gynaecological oncology practice in the South-south and South-East parts of Nigeria was conducted using search engines Highwire, Google, Google scholar, PubMed, Hinari, Web of Science, and Springer Link from January 1, 1984, to December 31, 2019. Review of cancer registries and annual reports from some of the third level hospitals in the region, augmented with telephone interviews of practicing consultants of the various institutions, were conducted. Data on the prevalent gynaecological cancers, age of patients, specialized oncological units, trained oncologists, radiological support, preventive oncological practice, and multidisciplinary team personnel were also collated. The data generated was entered into a pre-structured spread sheet and analyzed using statistical package for social science (SPSS 25.0). Results are presented in tables and percentages.

Results

Gynaecological cancers account for 25% of newly diagnosed cancers in developing countries and 16% in developed countries. It accounts for 16.8%

of the total in Nigeria.⁵ The prevalence is rising in developing countries. The most common types of gynaecological cancer are cervix ovary, endometrium, vulva, vaginal, fallopian tubes, and choriocarcinoma. This is illustrated in Table 1. The Eastern sector of the Society of Gynaecology and Obstetrics of Nigeria (SOGON) includes Abia, Akwa Ibom, Anambra, Bayelsa, Cross River, Ebonyi, Enugu, Imo, and Rivers states, comprising Nigeria's South-east and South-south regions. Most of the deaths from gynaecological malignancies are due to cervical cancer as shown in Table 2. Table 3 showed the prevalence of

gynaecological cancer in this region, with cervical and ovarian cancers being the most common malignancies.

With regards to personnel, 4 out of the 8 centres had dedicated oncology units, trained oncologists, and palliative team, while one-quarter (2) had clinical oncologists, and pathologists with special interest in gynaecological oncology. However, all 8 centres had Radiologists. Tumour markers and Immunochemistry services were available in only 4 centres, and radiotherapy was available in only 1 centre, though epileptic. This is shown in Table 4.

Table 1: Incidence of gynaecological cancers in Nigeria

Gynaecological cancers	New Cases			
	Number	Rank	Percent (%)	Cumulative risk
Cervix	12075	3	9.7	1.86
Ovary	3203	8	2.6	0.63
Uterus	1465	16	1.2	0.36
Vulva	930	24	0.75	0.15
Vagina	158	32	0.13	0.03

Globacan 2020

Table 2: Mortality from gynaecological cancers in Nigeria

Gynaecological cancers	Mortality			
	Number	Rank	Percent (%)	Cumulative risk
Cervix	7968	3	10.1	1.42
Ovary	2295	9	2.9	0.52
Uterus	470	26	0.60	0.13
Vulva	527	24	0.67	0.10
Vagina	93	32	0.12	0.02

Globacan 2020

Table 3: Prevalence of Gynaecological cancers in Eastern Sector of SOGON

States	Prevalence of Gynaecological Cancer (%)						Fallopian tube	Overall Prevalence
	Cervix	Ovary	Uterus	Vulva	Vagina	Chorio-carcinoma		
*Abia	38.1	21.4	16.7	-	-	23.8	-	8.4
Akwa Ibom	49.2	21.5	12.3	1.5	1.5	12.3	-	34.0
**Bayelsa	47.7	36.4	13.6	-	-	-	-	-
Cross Rivers	59.0	10.0	21.0	8.0	2.0	-	-	-
Ebonyi	60.6	19.2	10.1	7.1	-	3.0	-	8.4
Enugu	58.9	22.9	14	4.2	-	4.2	-	3.6
Anambra	61.4	26.3	8.8	1.8	-	-	1.8	10.8
Imo	60.1	20.6	10.6	8.2	0.5	5.5	-	-
Rivers	63.1	10.0	16.2	1.5	1.5	6.9	-	13.5%

*One-year review from the annual reports of the department **Cancer registry statistics for three years *SOGON: Society of Gynaecology and Obstetrics of Nigeria

Table 4: Personnel and facility audit for Gynaecological Oncology Service centres in States

Personnel / Facilities	STATES								Total (%)
	Rivers	Bayelsa	Akwa-Ibom	Imo	Enugu	Cross Rivers	Ebonyi	Abia	
Gynaecological oncology unit	√	-	√	-	√	√	-	-	50
Trained Oncologists	√	-	√	-	√	-	√	-	50
Clinical Oncologist	√	-	-	-	√	-	√	-	25
Pathologists (Special interest)	√	-	-	-	√	-	-	-	25
Palliative team	√	-	-	-	√	√	-	√	50
Radiologist	√	√	√	√	√	√	√	√	100
Multidisciplinary Teams	√	-	-	-	√	√	-	-	
*Computerized Tomography	√	-	√	-	√	-	-	-	
*Magnetic resonance Imaging	-	-	-	-	-	-	-	-	
*Radiotherapy	-	-	-	-	√	-	-	-	12.5
Tumour markers /Immunochemistry	√	-	-	-	√	-	√	√	50
Preventive Oncology unit Services	--	--	--	--	√	--	--	--	12.5

Discussion

The majority of patients who present to oncology units come from low socio-economic backgrounds, are poorly informed, have a poor health seeking attitude, and do not have the financial means to undergo the necessary investigations.¹⁰⁻¹⁵ Presentations following suboptimal surgical interventions by general practitioners or specialists are also noted, worsening the patients' prognosis.¹⁰⁻¹⁵ The out-of-pocket payments for oncological services has created a void in oncological patient management.¹⁶ Prior to presentation, the patients' involvement in unconventional management options is also noted, allowing for valuable time loss before definitive therapy. Treatment is further delayed when nutritional supplements are marketed as curative.^{2,9}

The reasons cited for poor compliance include a lack of an institutional standardized protocol for specific cancers, a lack of a cancer registry with detailed information for tracing patients who default, and improper/inadequate communication of the required information by the attending physician. The patient's ability to afford all necessary investigations during follow-up periods may also pose a challenge, making non-appearance a more realistic option. The lack of a regional cancer centre, which should act as a liaison with the primary treatment centre, also creates a default environment.¹⁰⁻¹⁵

Having a full complement of specialists such as gynaecological oncologists, medical oncologists, gynaecological radiologists, radio-oncologists, palliative care teams, gynaecological pathologists, and support infrastructures to offer optimal care are crucial to achieve good outcomes. Most patients who present to the various facilities receive suboptimal care due to the lack of specialized care centres. Among the interventions mentioned are simple extrafacial hysterectomy for stage 1 cervical cancers without lymphadenectomy, exploratory laparotomy and total abdominal hysterectomy, and bilateral tubal ligation for advanced ovarian tumours deemed inoperable.¹⁷ This obvious mismanagement not only increases morbidity but also mortality for the patient. Morbidities include increased anaesthetic and surgical risk for incomplete surgeries, as well as radiotherapy challenges, so what would have been a curative procedure becomes a palliative one.

An audit of the personnel offering specialized care in the various tertiary facilities leaves much to be desired such that a state of emergency should be declared in oncology. The outcome of management of gynaecological cancers is best when handled by gynaecologists trained in the subspecialty undertaking the surgeries and care as against that of a general gynaecologist.¹⁸ This is exacerbated by the lack of certified training programmes in the country provided by the various training bodies, including the West

African College of Surgeons and the National Postgraduate Medical College. Most centres have gynaecologists who have expressed an interest in gynaecological oncology, with a few taking short courses to enable them practice. Seeing the country's lack of specialized care, the Gynaecological Oncology Society of Nigeria recently proposed training programmes for gynaecological oncology that will improve patient care quality. The same pitiful situations can be found in the complementary chain of specialists who must collaborate with the gynaecological oncologist.

Many of the centres reviewed clearly provide suboptimal gynaecological oncology services. In most developing countries, organized screening programmes are largely absent.¹⁹ The opportunistic screening approach is still used in family planning clinics, STI clinics, and other health care delivery channels. A concerted effort should be made to ensure that the practice is varied, with adequate budgetary allocation and institutional and governmental will to provide quality cancer care to its citizens.

Conclusion

The unmet need in gynaecological oncology practice in the areas covered by the Eastern Sector of SOGON's practicing gynaecologist is enormous. The identified challenges include not only a lack of manpower and infrastructure, but also a lack of patients. Concerted efforts to improve the identified challenges through the suggested modalities in this paper will provide the practice with a quantum leap worthy of the twenty-first century.

Recommendations

Advocating for the use of community-based screening methods such as visual inspection with acetic acid for the identification of premalignant cervix lesions that can be performed by trained health providers, as well as prompt referral of positives results to tertiary facilities, should be encouraged.

The cost of cancer treatment in most countries is out of reach for even the most affluent, increasing the number of people who do not seek treatment or even follow up on complete management. The introduction of user fees in the screening for cervical cancers have been shown to adversely influence the patronage of screening programmes.¹⁵ In addition, the cost of cancer treatment in most countries are beyond the reach of the most venerable and hence increasing the number not presenting for treatment or even following up on complete management.¹⁵ This identified setback can be mitigated by the introduction of dedicated cancer funds by the central government for those affected by the condition going by the gynaecological cancer statistics of the country and its ranking in contributing to mortalities in the country.

The country's postgraduate training institutions should step up and provide the necessary platform for medical personnel interested in gynaecological cancers to receive subspecialty training alongside a full complement of support personnel. The disadvantage is that there isn't a critical mass of trained specialists in the country to get started. If this is the case, a concerted effort can be made to ensure that personnel are targeted for overseas training. Internally, the need for subspecialty categorization of service rendered among interested personnel may be another driver of the quest for improved service not only for the patient but also for individualized improvement of service.

The collaboration of all available institutional manpower with the primary goal of providing quality service while keeping the limitations of the practice in mind will be a welcome development. This change will result in the formation of a multidisciplinary team (MDT) in each institution for the benefit of practice and the patient. This forum allows for the exchange of ideas among specialists and the organization of evidence-based solutions to ensure best practice.

Advocacy for regional centres of excellence with a specific interest in ensuring optimal

geographical coverage should be considered. These centres may become the foundation in the near future for the training of subspecialty personnel in the field of gynaecological oncology. It will also ensure targeted spending, which will improve service delivery.

Finally, institutional delays have been identified as major contributors to patients' worsening morbidities and eventual accelerated deaths. Pathologists' preoperative diagnosis and final diagnosis after definitive surgery, preoperative optimization, post diagnostic therapy such as radiotherapy, and provision of chemotherapeutic agents are examples of delay components.²⁰ Creating departmental/institutional policies that prioritize cancer treatment will help to alleviate the burden significantly.

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