CANCER OF THE CERVIX AT THE UNIVERSITY OF BENIN TEACHING HOSPITAL (UBTH), BENIN CITY, NIGERIA IN THE LAST DECADE OF THE LAST MILLENNIUM

By

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SUMMARY

Objective:
To evaluate the incidence and clinical presentation of cervical cancer in a Nigerian tertiary health institution.

Methods:
A review of retrieved retrospective data relating to patients managed for cancer of the cervix at the University of Benin Teaching Hospital (UBTH), Benin City between January 1991 and December, 2000 was done and is presented as frequency tables.

Results:
Cancer of the cervix constituted 72.9% of all gynaecological malignancies seen at the University of Benin Teaching Hospital (UBTH) and accounted for 4.8% of all new gynaecological admissions. The mean age at presentation was 49.1±5.7 years, with a peak age of 41 years to 50 years. Commonest presenting feature was abnormal vaginal bleeding while the modal stage at presentation was IIIB. The squamous cell variety was commonly encountered.

Conclusion:
Cancer of the cervix is of Public health importance in Benin City, Nigeria. Late presentations render curative protocols ineffective. Public enlightenment targeting sexually active women in the lower socio economic strata to boost uptake of screening services should be undertaken.

Key words: *cancer, cervix, late, Benin City.*

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INTRODUCTION

Throughout the world, about 500,000 women are diagnosed with cervical cancer every year[1]. All communities are burdened with cancer in terms of suffering and disruption of lives of the population, but regional variations do exist[2].

Cancer of the cervix is the second commonest female cancer worldwide, with only breast cancer occurring more frequently[3] and the most common genital cancer in Nigeria[4,5]. Worldwide, it is said to constitute 4% of all female malignancies[6]. The general incidence in Nigeria is not known but the peak age incidence is put at between 36 years and 45 years[5]. In earlier studies at this centre, it accounted for an average of 74% of all gynaecological cancers[7] with a peak age incidence of 45 to 54 years.

Cancer of the cervix is a disease with a fascinating aetiology. By virtue of its accessibility, it can be readily diagnosed even in the pre-invasive stage[8, 9]. Treatment of this pre-invasive lesion prevents the invasive disease. The foundation for this prevention rests on screening (cervical smear) as was laid down by Papanicolaou[10]. In developed countries, there has been a decrease in the incidence and mortality from cervical cancer in the past 30 years. This suggests that the burden due to this disease can be reduced worldwide by applying current knowledge[11]. Regrettably, this disease is still common in the poorer countries including Nigeria, where screening is insufficient[12].

This study aims at evaluating the hospital incidence and clinical presentation of cervical cancer; and appraises the management modalities and outcome at UBTH, Benin City, Nigeria during the last decade of the last millennium.

MATERIALS AND METHODS

The case records of all patients presenting with cervical cancer managed in UBTH between January 1, 1991 and December 31, 2000 retrieved from the central records, theatre and pathology departments were reviewed.

Data relating to the socio-demographic profile of the patients, clinical presentation, physical findings, histopathologic type, clinical management and mortality were extracted. The total number of other gynaecological malignancies was obtained from the gynaecological ward and theatre records.

In the unit, the initial diagnosis of cancer of the cervix is based on history and physical examination. Occasionally, some patients are discovered to have malignant cells on cervical smear. The patient's haematological status, renal and hepatic functions are next assessed. Chest X-ray, abdominopelvic ultrasound scan and intravenous urography are also performed to ascertain the extent of clinical involvement. Following stabilization of the patient, she is then scheduled for examination under anaesthesia, staging of the malignancy and cervical biopsy. The biopsy specimen is thereafter sent for histopathological studies. Further management is dependent on the stage of the disease. Late cases are referred out for radiotherapy while the rest benefit from surgery. Upon discharge, they are followed up in the gynaecological clinic.

RESULTS

During the decade under review, there were a total of four hundred and one (401) gynaecological malignancies on record in the unit. Of these, two hundred and ninety-one (291) were cervical cancer. Nine of the case records were not found and were therefore excluded from the study. Cancer of the cervix constituted 72.9% of the malignancies and made up 4.8% of all gynaecological admissions. The relative hospital incidences in the two five-year halves were 75.0% and 70.8% for the periods 1991 – 1995 and 1996 – 2000 respectively (Table 1).

Table 1
Distribution of Gynaecological Cancers and Prevalence of Cervical Cancer at UBTYH, Benin City

Cancer Year	Cervix	Ovary	Endometrium	Vulva	Vagina	MTD*	Total	Prevalence of cervical Cancer
1991 – 1995	126	16	9	2	1	14	168	75.0
1996 – 2000	165	38	12	2	2	14	233	70.8
Total	**291**	**54**	**21**	**4**	**3**	**28**	**401**	**72.9**

*MTD: - Malignant Trophoblastic Disease

Majority (40.4%) of the patients were aged between 41 years and 50 years. The mean age was 49.1± 5.7 years with a range of 26 years to 83 years. One hundred and seventy five of the patients (62.1%) were postmenopausal while 107 (37.9%) were premenopausal, (Table 2). Table 2 also revealed that no nulliparous woman presented with cancer of the cervix during this decade, whereas 225 (79.8%) of the presenting patients were grandmultiparous. The modal parity was 7.

Table 2
Socio demographic characteristics of patients with cancer of the cervix

Parameters		Frequency	%
Age (years)			
	21-30	4	1.4
	31-40	51	18.1
		114	40.4
	41-50	59	20.9
	51-60	48	11.0
	61-70	5	1.8
	71-80	1	0.4
	≥81		
Parity	0	0	0
	1 - 4	47	16.7
	5 - 9	225	79.8
	≥10	10	3.5
Social Class			
	I	0	0
	II	2	0.7
	III	76	26.9
	IV	98	34.8
	V	72	25.5
		34	12.1
Unknown			

One hundred and fifty six of them (55.3%) were married in a polygamous setting, a hundred and eleven (39.4%) in monogamous marriage while fifteen (5.3%) were divorced. None of the patients belonged to social class I in the society, whereas 26.9%, 34.8% and 25.5% belonged to the lower socio economic strata of III, IV and V respectively. However, the socio economic class of 34 patients (12.1%) could not be determined due to poor documentation, the husband's occupation or the patient's educational status having been omitted in the records.

The main clinical presentations are shown in table 3. A minority had dyschezia, dizziness, haematochezia, fever and lower limb paresis at presentation. Four patients (1.4%) were asymptomatic.

Table 3
Main Clinical Presentations of Patients with Cancer of the cervix at UBTH, Benin City

FEATURES	Frequency	(%)
Abnormal vaginal bleeding	258	91.5
Vaginal discharge	123	43.6
Abdominal pain	58	20.6
Low back pain	45	16.0
Pelvic pain	38	13.5
Weight Loss	37	13.1
Urinary retention	21	7.5
Constipation	15	5.3
Haematuria	15	5.3
Lower limb edema	13	4.6
Vesico-vaginal fistula	4	1.4
Asymptomatic	4	1.4

Table 4 presents the clinical staging of the disease at presentation. The modal stage was IIIB constituting 32% of all cases. This trend was evident in both halves of the decade – 26.5% and 362% respectively between 1991 and 1995 and 1996 and the year 2000. Generally, only 17.3% of the patients presented in stages I and IIA of the disease compared with 82.7% who had stages IIB to IVB cancer. No patient presented with stage I disease in the later half of the decade. Documentation as regards the stage of cancer at presentation was not made in respect of sixteen patients.

Table 4
Trend in Stage of Cervical Cancer at Presentation at UBTH, Benin City

YEAR	1991 - 1995		1996 – 2000		10 YEAR TOTAL	
STAGE	FREQ.	%	FREQ.	%	FREQ.	%
0	-	-	-	-	-	-
IA	7	6.0	-	-	7	2.6
IB	12	10.3	-	-	12	4.5
IIA	6	5.1	21	14.1	27	10.2
IIB	24	20.5	7	4.7	31	11.7
IIIA	7	6.0	19	12.8	26	9.8
IIIB	31	26.5	54	36.2	85	32.0
IVA	30	25.6	36	24.1	66	24.8
IVB	0	0	12	8.1	12	4.5
TOTAL	117	100.0	149	100.0	266	100.0

Two hundred and sixty-six patients underwent examination under anaesthesia at which staging of the disease and biopsies were done. Squamous cell carcinoma was implicated in 95.5% while the adenosquamous variety and adenocarcinoma accounted for 2.5 and 2.0% respectively. Radical hysterectomy with removal of vaginal cuff was performed in 38 (13.5%) patients. Most patients, 164 (58.2%), were referred for radiotherapy, while chemotherapy using cisplatin was employed in 2 (0.7%) of the patients. Eight patients were offered palliative treatment only.

Twenty deaths giving a mortality rate of 7.1% were recorded on admission during the period under review. Causes of death, where known, are detailed in table 5.

Table 5
Mortality of Cancer of the Cervix at UBTH, Benin City

Causes of death	1991 – 1995		1996 – 2000		TOTAL	
	freq	%	Freq	%	Freq.	%
Uraemia	6	60	5	50	11	55
Not documented	3	30	5	50	8	40
Haemorrhage	1	10	-	-	1	5
Infection	-	-	-	-	-	-
TOTAL	10	50	10	50	20	100

DISCUSSION

Cancer of the cervix has been shown to be the commonest as well as the leading cause of death among all gynaecological malignancies in the developing world[13]. In this study it constituted 72.9% of all gynaecological cancers seen during the 10 year period at the University of Benin Teaching Hospital, Benin City, Nigeria. This is comparable to earlier studies in the same unit[7,14] and observations elsewhere[4,5,15]. However, the figure is higher than the average figure of 30% cited for some developed countries[16]. This trend was maintained in the two halves of the decade.

All age groups between the third and ninth decades of life were affected, and in keeping with the literature, those within the 41 to 50 years age bracket were the most affected[12,16,17]. Asuen[7] in the same unit reported a peak age incidence in those between 45 years and 54 years in 1977 while Omigbodun and co-workers[18] reported a peak of 35 years to 45 years. The mean age in this study was 49.1±5.7 years. Age however was not a barrier to full assessment and definitive treatment[9].

Cancer of the cervix has been linked to sexual behaviour of the woman as well as her spouse's[13]. This fact was shown in table 2, as in other studies[5,6], which shows that more than 83% of the patients were grand multiparous, the nulliparous women being largely unaffected. Meanwhile 55.3% of these were married in polygamous setting while 5.3% were divorced. These are risk factors for multiple sexual partners, a recognized risk factor for cervical cancer[9, 16].

In this study, each woman was allocated to one of five socio economic classes according to a scoring system based on her education and her spouse's income (occupation)[19]. Majority of the patients were of the low socio economic class – another known risk factor[16, 20].

Abnormal vaginal bleeding, as seen in 91.5% of the patients, was the commonest feature at presentation; this manifested as postcoital bleeding, postmenopausal bleeding or intermenstrual bleeding. Other common presentations were vaginal discharge and abdominal pain. Patients who presented with late features of the disease had weight loss, haematuria, low back pain and lower limb edema[9.21]. The presentation in late stages was corroborated by findings at clinical staging after examination under anaesthesia (Table 4). Almost 90% of the patients presented with cancers at stage IIB and above. In fact, no patient presented with stage I disease in the second half of the decade. This late presentation is a peculiarity of the disease in developing countries where about 80% of these are incurable at the time of detection, in contrast to situations in the developed countries where a corresponding percentage are cured since they are detected at their early stages[22,23]. Illiteracy, poor health seeking behaviour prevalent among the lower socio economic population as seen in our study may be responsible for this.

The squamous cell carcinoma constituted 95.5% of the tumour types seen here. Adenosquamous and adenocarcinomatous varieties made up the remainder. Studies from Lagos, Ilorin and Kenya noted similar pattern[4,210,24]. The rarer varieties of clear cell cancer, lymphomas or sarcomas were not recorded in the unit.

Radical hysterectomy was performed for 13.5% of the patients with early disease (stages IA, IB and IIA). Though simple hysterectomy or even cone biopsy alone is advocated for stage IA cancer[9], radical hysterectomy is routinely done with pelvic lymphadenectomy in our unit. Even though the risk of distant spread is reported as 1% and 5% for stages IA^1 and IA^2 respectively[25], the risk does exist and some surgeons recommend a more aggressive surgical procedure [26].

Twenty patients died while on admission, giving a mortality rate of 7.1%. Uraemia was the leading cause of death[12] responsible for 55% of cases (Table 5). This aspect of the statistics is grossly deficient considering that majority with the late disease are referred out and may be subsequently lost to follow up. However, globally, an estimated 200,000 patients are said to die of the disease annually[27] and this is significant in the developing countries where the younger woman are often affected with tremendous family and social complications[1].

CONCLUSION

Cancer of the cervix at UBTH, Benin City, Nigeria is associated with high morbidity and mortality rates. The bed occupancy rate in gynaecological wards remains high. Late presentation of most of the patients renders optimal management protocol ineffective for curative purposes. Cancer of the cervix has been incontrovertibly linked to the patients sexual life. Screening of every sexually active female[8,9,10,17,28,29] would enable early detection and treatment of the disease.

Public enlightenment to improve the awareness of the problem and acceptability of the screening modalities would lead to increased uptake of such services. Women in the low socio economic classes should be the prime target.

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