

## Vulvar and vaginal cancers as seen at the University College Hospital Ibadan, Nigeria

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### Summary

In a study of female lower genital tract cancers over a 20-year period (1976–1995), 30 cases of histologically confirmed vulval cancer and 46 of vaginal cancer were seen, constituting 1.3% and 2%, respectively of total female genital cancers. Over 50% of the cases occurred between the 4th and 6th decades. Vulval cancers are further identified into the 7th decade. The majority of cases were of squamous cell carcinoma and the role of HPV is uncertain. For various reasons most patients received unsatisfactory surgical treatment. The populace should be educated regarding early hospital attendance in cases of genital tract lesions, as this will improve the treatment outcome. Whereas healthcare workers should strive to offer the best treatment options available including prompt referral to specialist centres, governments should supplement the cost of care for patients with malignant diseases since the treatment cost can be prohibitive for the individual patients whereas the overall prognosis in early disease is fair.

**Keywords:** *Lower genital cancers, Vulva, Vagina, Nigerian women*

### Résumé

Dans une étude de cancer des organes génitaux femelle, pendant une période de 20 ans (1976 – 1995), 30 cas histologiquement confirme de cancer de la vulve et 46 des cancers vaginaux avaient été observés constituant 1.3% et 2% respectivement de la totalité des cancers génitaux femelle. Plus de 50% des cas surviennent chez les femmes dans leur 4<sup>ème</sup> et 6<sup>ème</sup> décennies. Les cancers de la vulve ont été aussi identifiés à la 7<sup>ème</sup> décennie. La majorité des cas étaient les carcinomes des cellules du squameux et le rôle du HPV dans ces cancers n'est pas certain. Pour des raisons variées la plupart des patients ont reçu des traitements chirurgicaux non satisfaisants. La population devrait être éduquée sur la consultation hospitalière précaution en cas de lésions des organes génitaux, car ceci améliorera les résultats des traitements. Par ailleurs les travailleurs des services de santé devraient faire de grands efforts. Pour offrir les meilleures options de traitements disponibles. Ces options incluent la référence rapide des patients aux centres spécialisés. Le gouvernement devrait compléter le coût des soins chez les patients avec des maladies malignes d'autant plus que le coût de traitements peuvent être élevés chez les patients. Cependant, le traitement de la maladie à ces débuts est à l'abandon.

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### Introduction

Worldwide incidence of female genital cancers varies between 0.0 in parts of Japan and 6.0/100,000 in parts of Cuba [1]. Although gynaecological cancer frequencies appear relatively low in hospital practice, frequencies of lower genital tract cancers are lower still.

Between 1960 and 1966, vulval cancers constituted 5.86% of the total gynaecological cancers recorded at the Ibadan Cancer Registry [2]. No cases of vaginal cancers seem to have been documented for that period. In a further report on all cancer cases in Ibadan, occurring between 1960 and 1980, Abioye [3] found "tumours of other unspecified genital organs" in females to have the lowest relative ratio frequency (RRF) at 0.4%. These presumably included vulval and vaginal cancers. In this same period, Megafu found that cancers of the vulva and vagina constituted 2.66% and 1.33%, respectively, of female genital tract cancers occurring over a 5-year period in Enugu, Nigeria. Enugu is some 750 kilometers southeast of Ibadan.

The literature on female lower genital tract cancer is sparse in Africa, but it would appear that comparably low relative frequencies of these two lower genital tract neoplasms were uniform across Africa. [5,6,7].

The majority of cases in developing countries still present late to the available health facilities as is generally the case with other forms of cancer. The vague symptomatology of vulval cancers may contribute to this late presentation. In the experience of Rogo and Orero in Kenya, women with vulval cancer presented with 'abdominal pains' more often than with obviously related symptoms [6]. In Cameroon, 4 of 7 cases of vulval and vaginal cancers seen at a university hospital [5] were "inoperable". Smith (1981) observed that "patients with vulvar cancer were rarely seen with early disease even in the developed countries" [8]. He noted that "patients delayed, physicians delayed, and there was a lack of early symptoms". However, in countries that have screening programmes in place, diagnosis is made early and near optimal quality of life follows therapy.

Health services plans and health education in developing countries appear not to emphasize enough of preventive care but rather go for less available options of treatment. This may be responsible for the variation in outcome of patients with similar diseases between our environment and the more developed nations. In addition, as in other cancers, there might be some difference in the susceptibility factors between the various environments and this might include local practices and exposures.

We set out to:

- (I) characterise our patients with vulva and vaginal cancers
- (II) attempt a geographical-spatial frequency categorisation of patients, and

- (III) identify salient factors influencing definitive patient care.

The current review of cancer registry cases covers a period of 2 decades following the last review from this centre. It is pertinent to note that clinical staging guidelines and classification for this group of tumors have been updated at least twice within this period. [9,10,11].

Our hospital, the University College Hospital, Ibadan (UCH), serves as the major referral centre in Nigeria, with a catchment radius of up to a thousand kilometers. Our Cancer Registry has been in existence for about 37 years now and data are retrievable up to at least 35 years, whilst patient's case notes are also largely available for the same period. Radiotherapy has been available here for some 27 years, first as caesium inserts and later as a whole suite of machines.

**Patients and methods**

Records of gynaecological cancer documented at the Ibadan Cancer Registry between January 1, 1976 and December 31, 1995 were obtained. The names and hospital numbers of patients with vulva and vaginal cancers were extracted, and their case notes retrieved and reviewed.

A separate systematic search of the lists of all gynaecological surgery performed in our hospital during the same period was also carried out going through the operating theatre log book. The same search was done in the gynaecological ward admission register, and at the Radiotherapy/Oncology unit of the hospital.

From all these sources, we matched patients with data regarding histologically confirmed cancers of the vulva and vagina. Available relevant information on patients were then recorded including the patients' age, clinical presentation, stated stage of the disease, histological type, treatment offered, documented complications, ethnic background and sources of referral.

Diagnostic criteria for vaginal cancer were applied as are clearly spelt out, namely:

- (i) that the primary site must be in the vagina
- (ii) that the uterine cervix and vulva must be healthy, preferably proven by negative cervical biopsies at the time of diagnosis (and 10 years prior), and
- (iii) that there must be no clinical evidence of primary carcinoma in other sites [12].

The data was analysed by simple tabular methods with construction of illustrative pie charts and histograms where appropriate.

**Results**

In all there were 2330 cases of female genital cancers diagnosed over the study period. These were distributed as shown in Fig. 1.

Table 1 shows the distribution of cases seen over the 20-year period (1976 to 1995). Thirty cases of vulval cancer were recorded at the Ibadan Cancer Registry. Of these, 23 patients were physically seen at UCH. When it was indicated, we found that 11 cases

were diagnosed by incisional biopsy while 9 cases had excision of the lesion of vulval cancer.

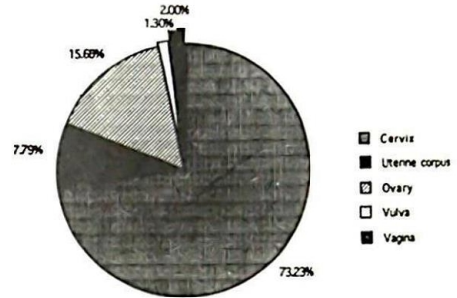


Fig. 1: Relative ratio frequency (RRF) of Female Genitals Cancers, Ibadan 1976 – 1995.

Table 1: Source health facility of patient/specimens diagnosed as vulvar or vaginal cancers, The Ibadan Cancer Registry (1976 – 1995).

Source	Ca. Vulva	Ca. Vaginal
Ibadan and environs	26	40
St. Luke's Hospital, Anua	1	0
Baptist Hospital, Ogbomosho	1	4
UBTH, Benin-City	1	0
Baptist Hospital, Shaki	0	1
Eruwa	1	1
<b>Total</b>	<b>30</b>	<b>46</b>

Forty-six cases of vaginal cancer were diagnosed, of which 42 were seen at the UCH. Diagnoses in these cases was basically by incisional biopsy. The other patients were recruited into the cancer registry records from other health facilities in and around Ibadan as shown.

Vulval and vaginal cancers showed the lowest relative ratio frequencies at 1.3% and 2.0%, respectively. Comparatively, cancer of the cervix occurred at a frequency of 73%. The other characteristics of the patients are as shown in Fig. 2, and Tables II and III.

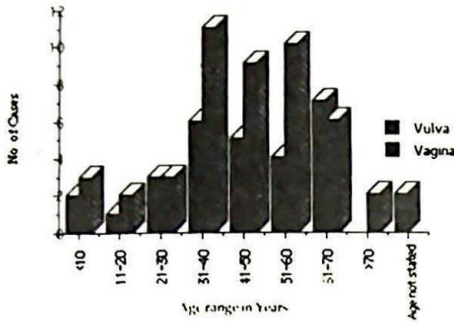


Fig. 2: Age Distribution of vulval and vaginal cancers in Ibadan 1976 – 1995.

Table 2: Histological diagnoses of specimens of vulval and vaginal lesions at the UCH Cancer Registry (1976 – 1995).

A	Vulvar tumours	No. of cases	%
1	a. Squamous cell carcinoma	22	73.33
	b. Verrucous carcinoma	1	3.33
2.	Adenocarcinoma	2	6.67
3.	Heamangioendothelioma/ Heamangiopericytoma	2	6.67
4.	Cancer (NOS)	3	10.00
	<b>Total</b>	<b>30</b>	<b>100</b>
B.	<b>Viginal tumours</b>		
1.	Squamous cell carcinoma	37	80.4
2.	Adenocarcinoma	4	8.7
3.	**Sarcomas	3	6.5
4.	Malignant lymphoma	1	2.2
5.	Adenosquamous carcinoma	1	2.2
	<b>Total</b>	<b>46</b>	<b>100</b>

\*\* comprise 1 leiomyosarcoma, and 2 embryonal rhabdomyosarcomas

Table 3: Socio-ethnic group of Nigerian patients with lower genital cancers, Ibadan Cancer Registry (1976 – 1995).

Ethnicity	Ca. Vulva	Ca. Vulva
Yoruba	22	36
Ibo	2	3
Efik/Ibibio	2	0
Hausa/Fulani	2	7
Edo/Ishan	2	1
Southern Zaria, Plateau, Tiv	0	1
Itshekiri	2	1
Not stated	1	3
<b>Total</b>	<b>23</b>	<b>41</b>

Most patients were seen between the 4th and 7th decades with peak incidence in the 5th and 6th decades of life.

As might be expected, in either site the predominant lesion was squamous cell carcinoma. Two vascular lesions were seen in the vulva while 3 sarcomas occurred in the vagina.

**Discussion**

In this study, vaginal cancers occurred at a higher relative frequency than vulval cancers. This contrasts with findings in most other centres around the world, as well as that of Megafu in Enugu, Nigeria [4]; in fact, the figures show a tendency towards reversal of those by Megafu. Vaginal cancer is believed to be among the rarest worldwide [13].

Careful perusal of the clinical notes suggested that criteria for the diagnosis of vaginal cancer were met, thus imparting on the relative distribution of vulvo-vaginal cancer in this centre. Another significant finding among our patients is that the peak incidence is at an earlier age than in western literature. This is in keeping with the pattern of cancer occurrence in this environment as previously documented [14].

We attempted to interpret our data by comparing the patients actually seen with the number of surgical specimens, and by categorising our patients against their ethno-cultural backgrounds.

Two deductions from this exercise were that:

- (1) The majority of Cancer Registry data would describe patients seen at the facility where the registry is located and not from outside, peripheral or satellite health care facilities,
- (2) Most of the patients seen were from parts of southwest of Nigeria.

Habits and practices differ between the various ethno-cultural groups even when residing within the same environment, e.g., insertion of vaginal pressaries as a treatment for infertility and vaginal discharge is common among some Yorubas. This may be important in comparative frequencies of cancers. Data from the Zimbabwe National Cancer Registry show, for example, that cervical cancer was more common among women of African descent than it was amongst non-African women in Zimbabwe [7]. The high representation of Yoruba women is probably just indicative of the location of the registry. It does not necessarily rule out the possible role played by the use of pessaries or other irritants as a major risk factor in this environment however. To establish this will require some prospective enquiry.

Among the patients with vulval cancer, the majority had squamous cell carcinoma as is the usual histological distribution. The one case of verrucous carcinoma was in a 70-year-old woman and this is also in keeping with the late onset of these lesions. Of the known associated risk factors, none, except poor hygiene, could be said (even then conjecturally) to possibly operate here. History of diabetes, exposure to carcinogens, and accompanying cervical or vaginal cancers was negative. It was not possible to test for the role of Human Papilloma Virus (HPV) in these cases as the appropriate antibodies were not available for use on the tissue blocks seen.

This paper set out in the second objective to perform a geographical-spatial frequency categorisation of the patients, but this was not feasible due to the small numbers involved. Nine of the patients had excisional biopsy (vaginectomy or vulvectomy as appropriate)

while 11 had only incisional biopsies done for histological diagnosis. The surgical management of the remaining 3 cases was not indicated. Available information from the histology request forms and the few case notes indicated clinical stages between 0 and II in 14 cases. It would seem therefore that the majority of patients had intangible surgical therapy despite their early stage presentations. Aimakhu [2] working in the same centre, had previously observed and documented that patients tended to default from treatment especially where such intervention involved procedures with "mutilating" effects. The same experience is reported from South Africa from where Edelstein (1972) noted that 25% of patients admitted to Baragwanath Hospital with vulval cancers also absconded from treatment. [15]. The salient factors influencing definitive patient care in this study cannot be clearly discerned as the retrospective nature of this study is clearly a limitation in this respect.

A comparison of time frequencies of vulval and vaginal cancers, as shown in this retrospective study, affirms that this group of tumours are generally of low incidence (data not shown).

In conclusion, the frequency of lower genital cancers in Nigerian African women remains relatively low. However, vaginal cancers appear to be more common in this centre from the results of this study. The actual relative distribution of vulval and vaginal cancers may need further study. It will be necessary also to further study the influence, if any, of ethno-cultural backgrounds in the determination of relative frequencies of female genital cancers among Nigerian women.

Public education appears basically important in ensuring early presentation in hospital as well as the utilisation of available surgical therapy. Sensitisation of health-care workers in the rural areas that are underserved by trained doctors is equally important. The underlying message should be early and prompt referral.

On the other hand, governments and health-care providers would have to realistically consider the overall cost of gynaecological cancer care: even if community education and improved diagnostic skills make patients come to hospital, treatment may not be affordable, acceptable, or available.

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