

EPIDEMIOLOGICAL CHARACTERISTICS OF CARCINOMA OF THE CERVIX IN THE FEDERAL CAPITAL TERRITORY OF NIGERIA.

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ABSTRACT

Objectives: To study the epidemiological characteristics of cancer of the cervix in the Nigerian Federal Capital Territory (FCT), and also to serve as baseline information for future monitoring of on-going screening for pre-malignant cervical lesions.

Methodology: Retrospective study of all confirmed cases of cancer of cervix managed at the National Hospital, Abuja (NHA) from its inception in 1999 to 2003. The case records of the patients were retrieved from the records department and analyzed in terms of their age, sex, social characteristics, clinical presentation, histological diagnosis, treatment and follow up.

Results: Over the 5 year study period, 117 cases of cancer in women were managed in the hospital. Thirty-six (30.8%) were Cancer of the cervix. The mean age of the patients was 52.4 years, STD 1.18. Twenty-five (69.4 %) were grandmultiparous. The age at first confinement ranged from 12 to 19 (mean 15) years. Six (15%) admitted to multiple sexual partners.

A common presenting complain was bleeding through the vagina 28(51.9%), 27(50%) were anaemic and 21 (38.9%) were cachectic. Late stage cancers were 31(86%), and 34 (88.9%) were squamous cell carcinoma. Radiotherapy was offered to 21(58.3%). Five (13.9%) were confirmed dead but 16 (44.4%) were lost to follow up.

Conclusion: Cancer of the cervix present late in the FCT and the burden is heavy. The mortality is such that on-going screening for pre-malignant lesions of the service in the FCT should be encouraged and widened.

Key words: Cancer, cervix, burden, screening, FCT Abuja.

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INTRODUCTION

Cancer of the cervix is the commonest malignant lesion of the female genital tract.¹ Its presentation in our environment is late and hence it has a high mortality rate.^{2, 3} This paper assesses the epidemiological characteristics of this disease which is associated with sexual habit and human papilloma virus (HPV) infection in a fast-growing, inflation-driven, unemployment-rampant Federal Capital Territory of the African continent's most populous nation.

With Pap-smear screening, cancer of the cervix it is a potentially preventable disease.^{4,5} Early detection of pre-malignant lesions and their treatment will prevent invasive lesions.⁴ Detection of HPV in cervical smear using polymerase chain reaction (PCR) together with the evolving HPV vaccine will further cut down the number of the cases and

Hence the mortality due to the disease.⁵ There is already a screening programme for cancer of the cervix in the FCT but there is as yet no baseline data as to the burden of the disease. The documentation of the disease burden will form a database for assessment of the on-going screening exercise and will help follow its progress. The National Hospital Abuja is the only referral center in and around the FCT with facilities for the treatment of cancers and has recently acquired a PCR machine which will soon be put to use. These factors made it suitable for the assessment of the disease in the FCT.

This study was undertaken to study the epidemiological characteristics of cancer of the cervix in the FCT and to provide a baseline data for the assessment of the progress of on-going pre-invasive cancer screening exercise in the FCT.

METHODOLOGY

This was a retrospective study. All the case records of all confirmed cases of cancer of the cervix managed from June 1, 1999 to December 31, 2003 were retrieved from the computerized Records Department of the NHA. The cases notes were analyzed in terms of the bio data, social characteristics, clinical presentation, histological diagnosis, treatment, investigations and follow up of the patients.

RESULTS

During the study period, a total of 117 confirmed cases of cancer in women were managed in the NHA. Thirty six (30.8%) were cancer of the cervix. It was only second to cancer of the breast 57(48.7%). The mean age of the patients was 54.2 (STD1.18). The age distribution is shown in table I. The mean age at first intercourse was 15 years with a range of 12-19.

Tribe-wise, Hausa made up 18 (50%), Ibo 7 (18.0%), the Igala 5 (13.9%), Edo 3 (8.3%), and the Yoruba 2 (5.6%) while Effik contributed 1(2.8%).

Seven (19.4%) of the patients had tertiary education, 9 (25%) secondary 10 (27.8%) primary while the remaining 10 (27.8%) had no education at all.

As regards occupation, 21 (58.3%) were house wives, 6 (16.7%) were civil servants, 3 (8.3%) traders, 2 (5.6%) farmers and there are no recorded occupation for 4 (11.1%).

In the sexual history and social habit analysis, 17(42.5%) of the respondents had one husband while 7 (17.5%) had 2 husbands and 6(15%) had other sexual partners. Seven (17.5%) accepted starting coitus early in life. Only one patient (2.8%) had a sexually transmitted infection in the past and none of them smoked cigarettes.

Twenty patients (55.6%) presented with less than one year duration of symptoms, 9 (25%) within 1 year and 7 (19.4%) more than 1 year. The presenting complaints included bleeding through the vagina 28 (51.9%), abdominal mass 9 (16.7%), vaginal discharge 7 (13%), abdominal pain 6 (11.1%), weight loss 3 (5.7%) and 1 (1.9%) presented with rectal bleeding. Many presented with multiple complaints. The major clinical presentations were anaemia 27(50%), cachetxia 21(38.9%) and ascites 5 (9.2%). Macroscopically, exophytic lesions made up 30 (83.3%).

The staging of the cases and histological types are shown in table II. Stages IIB-IV made up the bulk, 31 (86.1%).

Histological findings were mostly of squamous cell carcinoma 32 (88.9%), well differentiated carcinoma accounting for 13 (36.2%).

Three (8.3%) of the patients were investigated for HIV and were all negative.

The main stay of treatment was radiotherapy 21 (58.3%). Neo-adjuvant chemotherapy with Cisplatin was given to 9 (25%), modified radical hysterectomy 5(13.9%) and 1 patient refused treatment. The commonest complications of the radiotherapy are diarrhea which is sometimes haemorrhagic and skin burns. Common side effects of the chemotherapy are nausea, vomiting and anaemia.

Five (13.9%) of the patients were confirmed dead, 16(44.4%) were lost to follow up, and 11 (30.6%) were recorded as having relocated. Only 3 (8.3%) patients were still coming for follow up as at the time of writing while there was no trace of 1 (2.8%).

Table I: Age of Patients

Age range(years)	Number	Percentage
<20	0	0
20-29	1	2.9
30-39	6	16.6
40-49	9	25.0
50-59	3	8.3
60-69	12	33.3
70 +	5	13.9
Total	36	100.0

Table II Staging and Histological types of cancer of the cervix (n=36).

Staging/histology	Number	Percentage
IA	2	5.6
IB	2	5.6
IIA	1	2.8
IIB	9	25.0
IIIA	2	5.6
IIIB	15	41.6
IV	5	13.8
Squamous cell carcinoma	32	88.9
Well differentiated	13	36.2
Poorly differentiated	7	19.4
Moderately well differentiated	4	11.1
Invasive squamous cell carcinoma non-keratinizing	5	13.9
Large cell keratinizing	3	8.3
Adenocarcinoma	4	11.1

DISCUSSION

The commonest cancer of the female genital tract is cancer of the cervix.¹ The findings in this study agree with this. In addition, cancer of the cervix was second only to breast cancer in this study, this also agrees with previous findings.^{6,7} This is in contrast to the situation in the developed world (with effective screening programs for pre invasive lesions) where cancer of the cervix is the tenth commonest cancer.⁸ It has been estimated that there are 25,000 new cases of cancer of the cervix in Nigeria every year⁹ while all over the world there are about 2.5 million cases currently.¹⁰ The mean age of all our cases was 54.2 years which is similar to 51.8 years recently found in Ibadan.³ This however disagrees with earlier findings of a peak age incidence of 36-45 years in Nigeria^{11, 12, 13} Less than 10% (5.6%) of our patients were aged less than 35 years. While this agrees with an Ibadan and the Asian countries studies, it differs from Angola, Uganda and Madagascar studies where 30% of the patients were younger than 35 years.¹⁰ Although more Hausas were found presenting here, we think it might be as a result of their indigene state where the FCT is located.

Cancer of the cervix is commoner in parous women generally and in this study we found 69% occurring in grandmultiparous women. The commonest presenting complain of cancer of the cervix is bleeding through the vagina. In this study, 51.9% presented as such. This is similar to the clinical presentation of 908 cases studied in Ibadan from 1980-1989.⁴ The major clinical findings were anaemia, cachetsia and the uncommon ascitis. Presentation of cancer of the cervix in the developing countries is usually late and this was attributed to many factors notable amongst which are poverty and illiteracy.^{4,11-13} Sixty one percent (61%) of our patients presented late. This is despite the fact that 44% of them were educated. Although 56% presented in less than one year, they were still found to be in late stages of the disease. The difficulties of living in this inflation-driven expensive city result in sexual escapades which might have amplified the contribution of poverty as a factor in the aetiology of this disease.

Of all the 36 patients, only 8.3% were still coming for follow up at the time of this study. Although 13.9% were actually confirmed dead, it is possible that most of the 44% that were lost to follow up and the 30% that were said to have relocated were already dead. This is because advanced cancer of the cervix with no treatment results in death within 2 years.^{4,7} This level of mortality shows the severity of the condition. It is estimated that 200,000 deaths occur yearly worldwide from cancer of the

cervix.¹⁴ The rate of loss to follow up in a supposedly enlightened environment though could partly be attributed to referral from outside Abuja, draws attention to need for better and wider enlightenment programmes for this disease, its prevention, management, complications and prognosis. The finding of 88.9% of cancer of the cervix in this study as squamous cell carcinoma and 11.1 as adenocarcinoma is similar to the general picture of 90-95% and 5-10% respectively.^{3,4,9}

This study confirms the increasing incidence of adenocarcinoma of the cervix in Nigeria which had been found to have risen from 3% in 1953 to 5.7% in 1989^{15, 16} and in 2003 we have found 11.1%. The immediate implication of this might not be completely clear, but suffice it to say that treatment option might be affected in future if the rise continues.

There is now a wide-scale Pap smear screening programme being funded by government, non-governmental organizations and individuals in the FCT. The value of this in the early detection of cervical cancer cannot be over emphasized.⁵ The authors feel that this programme should be accorded attention at a national level in view of the burden of the disease seen at the FCT in this study.

With the current role of HPV which is a sexually transmitted disease in the aetio-pathogenesis of this condition,^{17, 18, 19} such facilities as the PCR which is now in the NHA, will prove to be of immense value in the detection and diagnosis of this infection particularly high risk types of HPV. Furthermore, on going work²⁰ on the possibility of HPV vaccine will go a long way in reducing significantly the general burden of this disease.

The center for disease control CDC in 1992 included pre-malignant cervical lesions and cancer of the cervix as one of the diseases that can be used to diagnose AIDS in women and it is believed that the risk of invasive cancer of the cervix may be very high in areas where HIV 2 is predominant.⁴ In this study however, only 8.3% of the women were screened for HIV and they were all negative. This number is too small for any meaningful deduction. The authors believe that if all diagnosed cases of cancer of the cervix are screened for HIV, results of these probably prospective study findings will probably help in prognostication of the disease, an important relationship which had not been established⁵

CONCLUSION

The burden of cancer of the cervix in the FCT Abuja is immense with high mortality. It is recommended that Pap smear screening should be intensified and

every facility available for early detection of this disease put in place both locally and nationally. In place both locally and nationally.

It is important to screen the women with cancer of the cervix for HIV so that future studies will look at the outcome of management of this category of patients whether positive or negative.

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