Cancer of the uterine cervix at the University of Calabar Teaching Hospital, Calabar Nigeria

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Abstract: Background: This study was carried out to highlight the prevalence of cancer of the uterine cervix and shortcoming in the management of cervical cancer in our hospital. There is the need to improve on our personnel training and equipment acquisition. Method: This was a retrospective study. Case folders of forty-seven patients who were diagnosed with cancer of the cervix were retrieved and reviewed. Information on age, parity, clinical presentation, stages of the disease and management as well as management problems were analyzed. Results: There were 1450 admissions into the gynaecology ward during the study. Forty patients had histologically confirmed cancer of the cervix. This gave cervical cancer a prevalence of 2.76% of gynaecology ward admissions in this center. 82.5% presented with late stage disease where little or nothing could be done for them. Conclusion: Cancer of the uterine cervix is still a problem in our setting where uptake of screening methods and the availability of cytopathologists are still dismally low.

Keywords: Cancer, Uterine Cervix, Management

1. Introduction

Cervical cancer is the third most common malignancy in women worldwide, and it remains a leading cause of cancer-related death for women in developing countries, where more than 80% of cervical cancer occur,(1) wheras it is now relatively uncommon in the United States(2). arcinoma of the uterine cervix is the commonest female malignancy in developing countries (1). In Nigeria, it is the commonest cancer of the female genital tract accounting for 73.2% of female cancers in Ibadan (3).

The incidence of cervical cancer is related to the age at first sexual intercourse, parity and number of sexual partners of the woman (3). Genital infection with Human Papilloma Virus (HPV), a recognized carcinogen, is central to the etiology of cervical cancer (4). More than 115 different genotypes have been identified and cloned, and 90% of all cervical cancer are caused by eight HPVtypes 16, 18, 31, 33, 35, 45, 52, and 58.(5,6). HPVinfection is common in sexually active women, but 90% of the infections clear on their own within months to a few years with no sequelae. On average, only 5% of HPV infections progress to CIN2 or 3 within 3 years, 20% of CIN3 lesions progress to invasive cancer within 5 years, while 40% of CIN3 lesions progress to invasive cancer within 30years(1). Male factor is implicated in men whose former wives had cancer of the cervix, and those having penile or prostatic cancer (3). In areas where infection with Human Immunodeficiency Virus (HIV) is common, the risk of cervical cancer is at least 5 times more common in HIV infected women(7).

The mean age at diagnosis of patients with cervical cancer is 51.8 years (3). Data from cancer registries in developing countries indicate that approximately 80-90% of confirmed cases were among women 35 years and older (3).

Cervical cancer has a period of premalignancy. However, although the cervix can be easily accessed for screening tests, the women at higher risk do not benefit from these services. These women are frequently of poor socioeconomic background, uneducated and elderly(3)).

Over 95% of patients with stage 1a1 cancer of the cervix can be cured (1).

In Nigeria, most patients present late with advanced disease either stage III or 1V (8). At this stage of the disease, most patients can not be cured and the best that can be offered is palliative radiotherapy, the facility for which is not readily available in most centers (3).

Early disease is frequently asymptomatic but abnormal uterine bleeding and vaginal discharges are the most

common symptoms (8,9).

Staging is clinical but diagnosis must be confirmed by biopsy (10).

Management of cervical carcinoma is essentially surgery, radiotherapy or a combination of both. Chemotherapy is being used increasingly for recurrent disease or as a form of neo-adjuvant therapy (3).

The incidence of cervical cancer in the developed countries has decreased by 75% following the implementation of population based programs and treatment of preinvasive disease (9,10,11). This underscores the need for intensive research in our setting to identify the epidemiologic and etiologic factors, morbidities and management drawbacks.

1.1. Objectives of the Study

1. To determine the prevalence of cervical cancer in UCTH in this study.
2. To determine the presenting symptoms and signs.
3. To determine the clinical stage at presentation and the management offered.
4. To determine management problems encountered.
5. To determine the age distribution, mean age at presentation and some associated risk factors like parity.

2. Materials and Method

The study group consisted of patients admitted to the gynaecology ward of the University of Calabar Teaching Hospital (UCTH) for cervical cancer who had examination under anaesthesia and had cervical biopsy during the study period.

Out of forty seven (47) folders retrieved with diagnosis of cancer of the cervix, forty (40) had diagnosis confirmed by histology of biopsy specimen

The information on age, parity, clinical presentation, stage of the disease and management as well as management problems was analyzed.

Data were analyzed using tables showing figures and simple percentages and arithmetic mean was used to depict the mean age that patients present with the disease.

3. Results

During the five (5) years study period (2000-2004), one thousand, four hundred and fifty (1450) patients were admitted to the gynaecological ward of the University of Calabar Teaching Hospital (UCTH).

There were forty (40) patients with histologically confirmed carcinoma of the cervix. This gave cancer of the cervix an overall prevalence of 2.76% of all admissions in the gynaecology ward in our center.

Table 1 shows the age distribution of the patients. Majority of the women (52.5%) were aged 40-59 years. The youngest patient in the study was aged 30 years. The mean age at diagnosis was 51.5 years.

In table II, one patient (2.5%) was nulliparous while 80.0% had five children or more.

Table III shows the common clinical presentations. Vaginal bleeding and offensive vaginal discharge was present in 85.5% and 80.0% of patents respectively. The lesions were commonly exophytic /hard, or fungating and friable in 77.5% of cases.

Table IV shows the clinical stage of the disease on examination under anaesthesia. All the patents had cervical biopsy for histologic confirmation. Most of the patients (82.5%) presented with stage IIB to stage IV. Fifty-five percent presented with stage III disease.

Table V shows the modality of treatment, the problems and outcome of treatment. Twelve patients (30.0%) had total abdominal hysterectomy. This was done for stages 1 and II diseases. Two (16.7%) had vault recurrence. Fifty-five percent of the patients had referrals for radiotherapy. Three patients (13.6%) died in the ward after discharge.

Table 1. Age distribution

AGE RANGE (YEARS)	Mid-value (x)	Fx	NO. OF PATIENTS (f)	PERCENTAGE
30-39	34.5	276	8	20.0%
40-49	44.5	445	10	25.0%
50-59	54.5	599.5	11	27.5%
60-69	64.5	580.5	9	22.5%
70-79	74.5	74.5	1	2.5%
80-89	84.5	84.5	1	2.5%
TOTAL		2060	40	100.0%

The mean age using the summation of the mid-value of the age range (x) multiplied by the number of patients in the group (f) (2060), divided by the total number of patients (40) was 51.5 years. The standard deviation was 12.4 years with standard error of the mean at 1.73.

Table II. Parity Distribution

Parity	No. of Patients	Percentage
0	1	2.5%
1-4	7	17.5%
5	32	80.0%
TOTAL	40	100.0%

Table III. Clinical presentation of cervical cancer

Symptoms And Signs	No. of Patients	Percentage
Vaginal bleeding	34	85.0%
Vaginal discharge	32	80.0%
Abdominal pains	30	75.0%
Weight loss	20	50.0%
Urinary symptoms	10	25.0%
Ulcerative lesion	16	40.0%
Exophytic /hard or fungating friable lesion	31	77.5%

Table IV. Clinical stage of the disease

Stage	No. of Patients	Percentage
I	2	5.0%
IIA	5	12.5%
IIB	6	15.0%
III	22	55.0%
IV	5	12.5%
TOTAL	40	100.0%

Table V. Modalities of Treatment

Type of Treatment	No. of Patients	Percentage	Problem/Outcome
Surgical treatment	12	30.0%	2(16.7%) had vault recurrence
Referral for radiotherapy	22	55.0%	3 (13.6%) died in the ward, others no follow-up records found
Palliative treatment	6	15.0%	Advanced disease, all died within 3 months
TOTAL	40	100.0%	9 (22.5%) mortality

4. Discussion

This study has re-emphasized that Cancer of the Cervix is a common gynaecological occurrence in our environment. About 20% of the patients were aged between 30-39 years. This depicts the usual pattern in most countries in which a rise is noted from the early 20s shooting up sharply in the 30s and plateaus at 40 to 50 years of age (11)). Most of high incidence African and Latin American countries report that about 10-20% of women are less than 35 years at diagnosis3. Parity of five and above was observed in 80% of patients with histologically confirmed cancer of the cervix. This agrees with what obtains in other studies (12) It has been explained that the association between cervical cancer and bearing of children is not accounted for by cervical injury or infection during labour but by the sexual intercourse over many years, starting from an early age, worsened by increased exposure to sexually transmitted infection with human Papilloma virus (HPV) and poor socioeconomic condition (10,13).

Late presentation is a common feature of cervical cancer in the developing countries, where women are ignorant of the disease and its symptoms, and adverse socioeconomic conditions prevent them from maintaining adequate nutrition and personal hygiene (3, 10).

Abnormal vaginal bleeding and or offensive vaginal discharge were the most frequently reported symptoms in this study. Vaginal bleeding is due to surface ulceration of the growth while vaginal discharge is caused by necrosis and attendant infection of the necrotic tissue with saprophytes (10).. Probably the first symptom of early cancer of the cervix is a thin, watery, blood-stained vaginal discharge that frequently goes unrecognized by the patient.

The classic symptom is intermittent, painless metrorrhagia or spotting only postcoitally or after douching (9). Late symptoms or indicators of advanced disease include the development of pain referred to the flank or leg, which is usually secondary to the involvement of the ureters, pelvic wall, and or sciatic nerve routes. Many patients complain of dysuria, haematuria, rectal bleeding or obstipation resulting from bladder or rectal invasion. On gross appearance, the most common is the exophytic lesion, which usually arises from the ectocervix and often grows to form large, friable, polypoid mass that can bleed profusely (9). This was found in 77.5% of patients in this study.

Majority of the patients (82.5%) presented with late disease (stage IIB and above) and hence the prognosis was poor. The staging of the disease is clinical and done during examination under anaesthesia in theater involving careful vaginal and rectal examinations. Diagnosis must be confirmed by histology of a cervical biopsy specimen. The investigations done for the patients included full blood count, blood grouping for possible blood transfusion, serum electrolytes and urea, urine analysis, stool for occult blood, and other studies as indicated by patients condition. Radiological investigations included chest x-ray, intravenous urography and barium enema. Patients who were not fit for surgery were prepared by blood transfusions for those that were anaemic, treatment of associated vaginal infections and proper counseling on the disease, and extent of the operation. In this study, the patient who was aged 30 years had a positive pap smear. Cervical biopsy was done and it showed minimal invasion of the cervical stroma. She had cervical conisation as she was desirous of future fertility. She is still on follow-up.

Those who presented with early disease had hysterectomy as surgical treatment. There was a 16.7% recurrence of vault disease noted within three years. The patients were treated with chemotherapy using cisplatin combination. Prior to the end of the 19th century, simple hysterectomy with removal of the growth was the standard management, but had long been found inadequate3. Radical hysterectomy on the other hand is a procedure that must be performed by a skilled technician with sufficient experience to make the morbidity acceptable (1% - 5%) (9) Operative morbidity still remains high with haemorrhage, infection, ureteric and bladder injuries being most common (14).

Surgery is ideal for younger patients as it preserves ovarian and sexual function done in early invasive disease, and where radiotherapy is avoided for technical reasons such as pelvic inflammatory disease, pelvic abscess, uterine fibroids or pregnancy(3). The common complications include; haemorrhage, pyrexia, pulmonary atelectasis, pulmonary embolism, infection, ureteric/vesical injuries (3).

Radiotherapy is the treatment of choice in the majority of cases and is applicable at all stages of the disease (10).. This service is however not available in most centers including ours. Fifty five percent of patients seen in this study were referred for radiotherapy. There were no records of follow-up care but three patients died before the service

could be commenced.

About nine patients (22.5%) of the patients were reported dead from cervical cancer in this study. This underscores the need for early detection and prompt treatment of the disease where the primary preventive strategies may not be directly influenced by the gynaecologist.

Cervical cancer may be seen as a preventable and curable disease based on its natural history and the available knowledge on the disease. One of the cardinal principles of cancer management is that the earlier the detection, the higher the chance of cure. The accessibility of the cervix and the abundance of exfoliated cells available for study made regular routine cervical smear of significant value in the study of cervix and cervical abnormalities and has contributed significantly to cervical cancer reduction in the developed world.

Primary prevention of cervical cancer involves improving the status of he women, modifying their sexual behavior towards risk reduction, improving socioeconomic and educational attainment to reduce risk of early marriage, coital exposure, and parity. Vaccination with HPV vaccine may be potentially beneficial. In fact, one HPVshot may be enough to protect against cervical cancer (15).

5. Conclusion

Cancer of the uterine cervix is still a problem in our setting, and it is becoming more common among younger women (aged less than 35 years).

The presentation of abnormal vaginal discharge and bleeding are the most common features but our women present late with advanced stage disease where little or nothing could be done for them.

The problems associated with the management of the patients were identified to include the following:

The late stages of the disease at presentation and the poor socioeconomic status of the patients, poor public enlightenment and utilization of routine cytology, and colposcopic services where available.

The availability of trained colposcopists, cytopathologists and gynaecologic oncologic surgeons where such facilities exist and the presence of properly functioning radiotherapy services in most centers would improve treatment outcomes

There should be a national policy to safeguard the health of its citizens through effectively integrated primary, secondary and tertiary levels of care with emphasis on personnel training, capacity building and public education.

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