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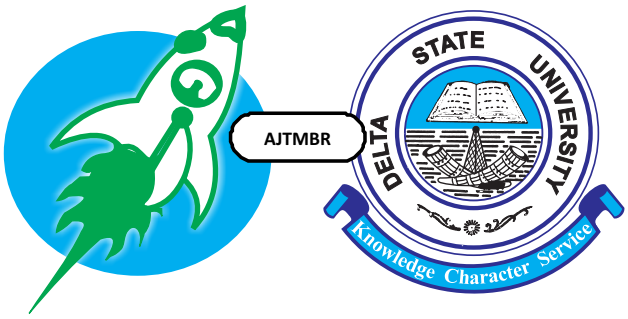

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Focus and Scope

The African Journal of Tropical Medicine and Biomedical Research is a multidisciplinary and international journal published by the College of Health Sciences, Delta State University of Abraka, Nigeria. It provides a forum for Authors working in Africa to share their research findings on all aspects of Tropical Medicine and Biomedical Sciences and to disseminate innovative, relevant and useful information on tropical medicine and biomedical sciences throughout the continent. The journal will publish original research articles, reviews, editorials, commentaries, short reports, case reports and letters to the editor. Articles are welcome in all branches of medicine and dentistry including basic sciences (Anatomy, Biochemistry, Physiology, Pharmacology, Psychology, Nursing etc) and clinical sciences (Internal Medicine, Surgery, Obstetrics and Gynaecology, Dental surgery, Child Health, Laboratory Sciences, Radiology, Community Medicine, etc). Articles are also welcome from social science researchers that document the intermediating and background social factors influencing health in countries of Africa. Priority will be given to publication of articles that describe the application of the principles of primary health care in the prevention and treatment of diseases.

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Table of Contents

Clinical attributes, histopathological characteristics and surgical outcomes of endometrial cancers at the University of Benin Teaching Hospital in Nigeria

Ezeanochie MC[1], Nweke VC[1], Isikhuemen Me[1], Okonkwo CA[1].

Abstract

Introduction: Endometrial cancer is probably the third commonest gynaecological cancer in sub-Saharan Africa. It occurs more commonly in the post-menopausal women. This research aims to document the clinical profile, histopathological types and survival rate of endometrial cancer patients with a view to improving care in our setting.

Materials and methods: This was a retrospective descriptive study of women with endometrial cancer who had surgery from January 1, 2013 to December 31, 2017. Case notes of patients satisfying the inclusion criteria were retrieved and relevant information extracted. The statistical analysis were done using Statistical Package for Social Sciences(SPSS) version 22.

Results: Thirty-three cases of endometrial cancer patients were reviewed. The mean age at presentation was 54.3+8years About half of the patients (45.5%) were hypertensive while 21.2% were diabetic. Twenty nine (87.9%) patients presented with abnormal uterine bleeding. All patients had total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH+BSO). Endometrial adenocarcinoma accounted for the majority of the histopathological type. One year survival following surgery was 97%.

Conclusion: When performed for early stage Endometrial cancer, TAH+BSO is associated with a favourable 1 year survival.

Keywords: Endometrial cancer, Total abdominal hysterectomy, Survival, Nigeria

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Introduction

Endometrial cancer is the commonest gynaecological cancer in the developed countries.[1] In Nigeria, it constitutes 4-11% of all gynaecological cancers[4,5]. It is probably the third commonest gynaecological cancer in sub-Saharan Africa, however It appears to be the most common genital cancers in North Africa.[7] It occurs more commonly in the post-menopausal women with about 90% and above affecting those aged between 50 and 65years.[8] Other reported risk factors include obesity, diabetes mellitus, nulliparity, tamoxifen use, polycystic ovarian disease and hypertension.[9,10] Unexposed eostrogen exposure has been identified by current evidence to be the primary predisposing factor of Endometrial cancer. The place of hereditary non-polyposis colorectal cancer as a risk factor has also been well documented.[11]

Endometrial cancer has two variants based on clinico-pathological features. They are type 1 and 2. Type 1 is the most common type accounting for up to 80-90% of cases and mostly associated with the risk factors mentioned above. Endometroid

adenocarcinoma is the histological type seen in this variant of endometrial cancer. Type 2 is less common but aggressive in spread and usually involve the older age group. Histological type is Non- endometroid, such as serous carcinoma, clear cell carcinoma, to carcinosarcoma.

Post-menopausal vaginal bleeding is the commonest symptom and might be the only physical finding in early stages as patient usually appears clinically stable. Other findings may include malodorous vaginal discharge, fever, anaemia and weight loss mostly in advanced disease. There may be associated abdominal swelling with or without tenderness. The inguinal and femoral nodes might be palpable. Definite diagnosis is confirmed by histology. Prior to that, a transvaginal ultrasound in a woman with post-menopausal bleeding is valuable in evaluation of endometrial cancer. The UK National Institute for Health and Excellence(NICE) recommends that a TVS should be done for all women with post-menopausal vaginal bleeding, an endometrial thickness of 5mm and above is significant and should be further investigated using endometrial sampling. Surgery remains the mainstay of intervention for endometrial cancer. Other options include radiotherapy and chemotherapy. It is controversial on the extent of surgery and lymph node dissection that should be done for patients with endometrial cancer.

There is paucity of data on the current clinical profile, surgical outcomes and histopathological type of endometrial cancer in Nigeria and in particular, the south-south geopolitical region of Nigeria. This research therefore aims to document the clinical profile, histopathological types and survival rate of Endometrial cancer patients seen at the University of Benin Teaching Hospital, Nigeria. It is expected that this information will be useful to evaluate the current quality of care for patients and contribute to interventions that will improve the quality care they receive.

Materials and methods

This was a retrospective descriptive study of women with endometrial cancer who had surgery at the University of Benin Teaching Hospital (UBTH), Benin City, Nigeria from January 1, 2013 to December 31, 2017. UBTH is a multi-facility tertiary health institution in Nigeria. Patients are usually referred from general hospitals, government owned health centres, private medical centres and from other departments in the hospital. The Department of Obstetrics and Gynaecology has 84 beds. The cases were women with histological diagnosis of Endometrial cancer who had surgery at UBTH. Women who were considered unfit for surgery or received other modality of treatment were not included.

The record of eligible cases was obtained from the gynaecology theatre register and the case notes of patients satisfying the inclusion criteria were retrieved from the medical records library, and relevant information extracted and exported into a database created for this study. The variables of interest were the clinical and sociodemographic characteristics of the study population. The statistical analysis was done using Statistical Package for Social Sciences (SPSS) version 22. The results were presented as frequencies and percentages for categorical variables while continuous variables as mean with standard deviation.

RESULTS

Thirty nine (39) patients had surgery for endometrial cancer within the period under review, but 33 (84.6%) case notes were retrieved for analysis. The mean age at presentation was 54.3$\pm$8years, mean parity was 2.67$\pm$1.02, and mean body mass index was 31.03%$\pm$0.52 (Table

1). While 69.7% of patients were menopausal, 30.3% were not. Twelve (36.4%) women had history of treatment for infertility and had ovulation induction. About half of the patients (45.5%) were hypertensive while 21.2% were diabetic. Only one patient had a history of smoking. Eight (24.2%) had family history suggestive of familial cancer syndrome and 1 patient had a history of hormone replacement therapy (Table 2). Twenty nine (87.9%) patients presented with abnormal uterine bleeding, 30% of patients had watery vaginal discharge, whilst abdominal swelling and pain was seen in 12.1% and 18.2% of patients respectively. Seven (21.2%) patients experienced weight loss. Most of the patients presented with at least 2 or more of the above symptoms.

All patients had total abdominal hysterectomy with bilateral salpingo-oophorectomy. Twenty five (75.8%) of them under general anaesthesia while regional anaesthesia(spinal/epidural) was the choice of anaesthesia in 24.2% of patients (Table 4). Twenty one (63.6%) women had midline skin incision, 34.4% had pfannenstiel incision. In terms of complications, four (12.1%) patients had intra-op transfusion of blood, 2 (6.1%) of them had significant blood vessel injury and four (12.1%) patients had postoperative wound breakdown. One patient (3%) had sepsis post op and was admitted into intensive care unit until recovery.

Endometrial adenocarcinoma accounted for the majority of the histopathological type (81.8%), while 3(9.1%) patients had adenosquamous carcinoma; 2 (6.1%) patients had the clear cell carcinoma type and 1 (3%) patient had serous papillary carcinoma. Low grade tumour accounted for 17(51.5%) of cases, 48.5% of patients had high grade tumour. Histology of more than two third of patients (78.79%) showed myometrial invasion and 21.21% did not. Eighteen (54.54%) patients had adjuvant chemotherapy post-surgery while the remaining 15 did not. Thirty-two women were still attending follow up clinic at one year giving an over all survival of 97%.

Table 1. Sociodemographic characteristics of women with endometrial cancer

Variable	Mean (±SD)	Min	Max.
Age	54.30(±8.049)	40years	73years
Parity	2.67(±1.021)	0	9
BMI(kg/m^2)	31.03(±0.523)	21	44

Table 2 Risk factors/clinical attributes of the study population

Risk factors/clinical attributes	Number	Percentage
Menopause		
Yes	27	81.8
No	06	18.18
Hormonal contraceptive		
Yes	09	27.3
No	23	69.7
Familial cancer history		
Yes	8	24.2
No	25	75.8
Diabetes		
Yes	7	21.2
No	26	78.8
Hypertension		
Yes	15	45.5
No	18	54.5
Hx of HRT		
Yes	1	3.0
No	32	97.0
Smoking		
Yes	1	3.0
No	32	97.0
Alcohol		
Yes	7	21.2
No	26	78.8

Table 3. Modes of presentation among women with endometrial cancer

Clinical features	Number	Percentage
Abnormal uterine bleeding	29	87.9
Watery vag. Discharge	10	30.3
Abdominal pain	6	18.2
Abdominal swelling	4	12.1
Weight loss	7	21.2
Others	15	45.5

Table 4. Operative details of women who had surgery for endometrial cancer

Surgical details	Number	Percentage
Anaesthesia		
GA	25	75.8
Regional	8	24.2
Skin incision		
Midline	21	65.6
Pfannenstiel	11	34.4
Intra-op blood transfusion		
Yes		
No	4	12.1
Vessel injury	29	87.9
Yes		
No	2	6.1
Wound breakdown	31	93.9
Yes		
No	4	12.1
Post op Sepsis	29	87.9
Yes		
No	1	3.0
ICU admission	32	97.0
Yes		
No	1	3.0
	32	97.0

Table 5. Histopathological characteristics

Histological Characteristics	Number	Percentage
TYPE		
Adenocarcinoma	27	81.8
Adenosqaumocarcinoma	3	9.1
Clear cell carcinoma	2	6.1
Serous papillary cancer	1	3.0
GRADE		
Low(I/II)	17	51.5
High (III)	16	48.5
Myometrial invasion		
Yes	26	78.79
No	7	21.21

Discussion

Endometrial cancer remains a common gynaecological cancer in worldwide and contributes to death from gynaecological cancers especially in late stages[12]. The mean age of presentation in this study was 54 years which was similar with previous studies from this region[7,13]. The highest incidence of endometrial cancer is

found in women more than 50years of age[13]. Only about 20% of patients are diagnosed of endometrial cancer before menopause which is similar to 18% of premenopausal disease in our study.[14]

Risk factors found among women with endometrial cancer are diabetes, hypertension, hormone replacement therapy, obesity and family history of HNPCC. Obesity has been established by several studies as a risk factor for endometrial cancer, infact obesity is associated with development of endometrial cancer than any other cancer[15-17] Hypertension has also been shown to be a risk factor for endometrial cancer[18,19,20]. About half of the cases reviewed were found to be hypertensive. This may have been due to high incidence of hypertension in blacks around this age range or a confounding factor as both obesity and diabetes mellitus which are risk factors for hypertension are also risk factors for endometrial cancer. Smoking is not common among women in our environment and this reflected in the finding, although this is thought to be protective. Women who use combined oral contraceptives for 12months and above reduce their risk of endometrial cancer by 50%[21]. Hence it was not surprising that most women in this study did not use any form of contraception.

Abnormal uterine bleeding/post menopausal bleeding as seen in this study, is the most common mode of presentation of endometrial cancer[22,23]. In this study, 87.9% of patients in this women had abnormal uterine bleeding and 63.6% had postmenopausal bleeding. Definite diagnosis of endometrial cancer is histology following endometrial biopsy. According to American college of obstetrician and gynecologists, women with abnormal uterine bleeding should be investigated for endometrial cancer if they are 45years and above or any age but with a history of unexposed estrogen exposure[24]. The National institute for health care and excellence also recommended that any woman with a history of postmenopausal bleeding should have a transvaginal scan and if endometrial thickness is 4mm and above should have an endometrial biopsy. Women that were seen in this retrospective study with endometrial thickness 4mm had endometrial biopsy.

All women in this study presented with early disease and so had total abdominal hysterectomy and bilateral salpingo-ophorectomy. About 75% of women with endometrial cancer will present early and this improves the chances of successful treatment[14]. Surgery remains the mainstay for the management of endometrial cancer. In early disease this will suffice and removal of uterus and ovaries has remained the basic recommended surgical procedure[13]. This can be done through laparotomy or by a laparoscopic approach. Intra-op, it is recommended not to insert any instrument into the uterus and to clamp the tubes at the beginning of surgery in a bid to prevent dissemination of disease.[13] The Place of routine pelvic and para-aortic lymph node dissection in endometrial cancer is controversial. However, a randomized trial which was done on clinically early disease concluded that pelvic lymphadenectomy should not be done as it did not alter survival rate and may have a negative impact on the outcome[25]. It is therefore not surprising that our patients had good outcome without pelvic lymphadenectomy.

Adenocarcinoma is the major histological type of endometrial cancer[13]. This was also documented in this index study. Although majority of the patients had poorly differentiated tumours, this does did not necessarily translate to a high fatal outcome. Asians and Africans presents more with high grade disease and are associated with poorer prognosis.[26]The survival rate after one year in this

study was 97% and some are on adjuvant therapy.

Conclusion

Endometrial cancer is commonly associated with vaginal bleeding. It can be diagnosed early and treatment remains surgery with or without adjuvant therapy. When selected for surgical treatment (TAH+BSO), it is associated with a high survival rate at 1 year.

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