ORIGINAL ARTICLE

PREVALENCE AND CHARACTERISTICS OF OVARIAN CANCER IN UDUTH: A 10 YEAR REVIEW

Burodo AT,* Isah BA, Panti AA * and Abdullahi Aisha***

**Department of Obstetrics and Gynaecology, Usmanu Danfodiyo University
Teaching Hospital Sokoto and **Department of Community Medicine,
Usmanu Danfodiyo University Teaching Hospital Sokoto.*

ABSTRACT

Objectives; To determine the prevalence and characteristics of ovarian cancers in women as seen in gynaecological Unit at UDUTH Sokoto.

Methods: A 10 year retrospective study of all cases of ovarian cancers seen at the gynaecological clinic of UDUTH Sokoto, between 1st January 2002, to 31st December 2011.

***Results:** The result of the study showed that out of the 16,140 cases seen at the gynaecological clinic at UDUTH, 39 cases were Ovarian cancer and this gives a prevalence of 0.24%. Fifteen of the patients (38.5%) fall within the age range of 60 years and above. About one third of the women 14 (35.9%) studied had a parity of between 0-1. Abdominal swelling, pain and GIT symptoms were the commonest presenting symptoms 32(82.1%). Majority of the patients 33 (84.6%) presented with advanced stage of the disease. Serous cystadenocarcinoma constituted the largest number of the patients 17 (43.6%). The majority of the patients 28 (71.8%) had epithelial cells ovarian cancer. The outcome of the study showed that 11 (28.2%) of the patients were alive, 16 (41%) of the patients died, 8 (20.5%) of the patients signed against medical advice (SAMA), while 4 (10.3%) of the patients were lost to follow up.*

***Conclusion:** The commonest ovarian cancer in this study was serous cyst adenocarcinoma. Majority of the patients present with late stage of the disease. Emphasis should be on high level of vigilance and early detection with improved diagnostic techniques.*

Key words: Ovarian cancer, review, Sokoto.

Introduction

Ovarian cancer has the highest case fatality rate among gynaecological cancers¹. Most patients present at an advanced stage as symptoms of early stage disease are non specific¹. Ovarian tumours behave in diverse way and generally escape detection until they attain a large size ². It accounts for 5% of all cancers among women³. One in 58 women will develop the disease and 47% of all death from cancer of female genital tract occurs in women with ovarian cancer³. In Sokoto, it was found to rank 3rd among the malignant cancers in females⁴. Similarly, in Zaria ovarian cancer was ranked 3rd commonest genital

tract malignancy⁵. While in Maiduguri north eastern Nigeria, it was found to be the 2nd commonest cancer of female genital tract⁶. The exact cause of the disease is not known, however, epidemiologic studies have identified a number of factors that may increase or decrease the risk of the disease⁷. The use of combined oral contraceptives has been found to be protective ^{8,9}. Heredity plays a significant role in the aetiology of ovarian cancer as 3 different hereditary syndromes of ovarian cancer have been identified, site specific familial ovarian cancer syndrome II (colorectal, endometrial and ovarian cancers) ^{7,8}. Cancer of the ovary is commonly seen in advanced age group; however, it can occur at all ages including infancy and childhood depending on the histological type¹⁰. This article aims to highlight the prevalence and

Correspondence: Dr. AT Burodo

E- mail: iftusan@yahoo.com

characteristics of ovarian cancers seen in gynaecological department of UDUTH Sokoto North Western Nigeria.

Materials and Methods

The study was conducted at the department of Obstetrics and Gynaecology Usmanu Danfodiyo University Teaching Hospital Sokoto. Information was retrospectively collected on all the patients with ovarian cancer seen in the department from 1st January 2002 to 31st December 2011. Forty eight cases of ovarian cancer were diagnosed during the period however, only 39 cases were retrieved giving a retrieval rate of 81.3%. Clinical information about individual patient was obtained from the case folders and the results were analyzed using SPSS statistical software version 17.

Results

The result of the study showed that out of the 16,140 cases seen at the gynaecological unit at UDUTH, 48 cases were Ovarian cancer and this gives the prevalence of cancer of ovary to be 0.3%. However detail analysis of data was based on the available 39 case folders. The result of the study showed that 15 of the patients (38.5%) falls within the age range of 60 years and above. Fourteen of the women (35.9%) had a parity of between 0-1. Abdominal swelling, abdominal pain and GIT symptoms (Nausea, vomiting and easy satiety) were the commonest presenting symptoms 32(82.1%). Majority of the patients, 33(84.6%) presented with advanced stage of the disease (stage III and IV). Serous cystadeno- carcinoma constituted the largest number of the cases 17 (43.6%). The majority of the cases, 28 (71.8%) were epithelial cells ovarian cancer. The outcome of the study at the time of retrieval of the folders and analysis showed that 11 (28.2%) of the patients were alive, 16(41%) of the patients

died, 8 (20.5%) of the patients signed against medical advice (SAMA), while 4 (10.3%) of the patients were lost to follow up.

Table I: Age and Parity of the Patients

Age(yrs)	Frequency (%)
< 30	2(5.1)
30-39	5 (12.8)
40-49	8(20.5)
50-59	9(23.1)
60 years and above	15 (38.5)
Parity of the patients	
0-1	14(35.9)
2-3	8(20.5)
4-5	8(20.5)
>5	9(23.1)
Total	39 (100)

The above table showed that 15 of the patients (38.5%) falls within the age range of 60 years and above.

Table II: Presenting Symptoms of the Patients

Presenting Symptoms	Frequency	Percentage
Abdominal swelling / pain and GIT symptoms	32	82.1%
Irregular vaginal bleeding	4	10.2%
Urinary symptoms	3	7.7 %
Total	39	100%

Abdominal swelling and pain were the commonest presenting symptoms (Nausea, vomiting and easy satiety) were observed in 32 (82.1 %) of the patients. All the patients evaluated had staging laparotomy however the patients that presented with stages I and II (15.4%) benefited from optimal surgery (Total abdominal hysterectomy, bilateral Oophorectomy and Infracolicomentectomy) the patients that presents at the advance stage of the disease had debulking surgery and were commenced on adjuvant chemotherapy with Carboplastin and paclitaxen 15(45.5%) while 16(48.5%) were on Cisplatinum and methotrexate and 1(3%) was on only cisplatinum.

Table III: Stages of Cancer of Ovaries

Stage	Frequency	Percentage
Stage I	5	12.8%
Stage II	1	2.6%
Stage III	12	30.8%
Stage IV	21	53.8%

The above table showed that majority of the patients 33 (84.6%) presented with advanced stage of the disease (Stage III and IV).

Table IV: Histologic Types of Cancer of Ovaries

Histological types		
Granulosa Cell Tumour	9	23.1%
Serous cystadeno carcinoma	17	43.6%
Mucinous cystadenocacinoma	7	17.9%
Endometroid adenocarcinoma	4	10.3%
Immature cystic teratoma	2	5.1%
Total	39	100%

Serous cystadeno carcinoma was the commonest type of ovarian cancer found in 17 (43.6%) of the patients followed by the Granulosa cell tumour 9 (23.1%), mucinous cystadeno carcinoma 7 (17.9%), while endometroid adenocarcinoma and Immature cystic teratoma were found in 4 (10.3%) and 2 (5.1%) of the patients respectively. All patients had staging laparotomy. Six15.4%) had optimal surgery while others had cyto-reductive surgery and chemotherapy.

Table V: Disease Outcome among Patients at Time of Study

Outcome	Frequency	Percentage
Alive	11	28.2%
Dead	16	41%
SAMA	8	20.5%
Lost to follow up	4	10.3%
Total	39	100%

SAMA = Signed against medical advice.

Discussion

Ovarian cancer continued to be one of the leading causes of death from gynaecological cancers¹⁰. The prevalence of ovarian cancer in the study was 0.30% which is lower than 8.9%¹¹ and 19.7%¹² reported in South Eastern and South Western Nigeria respectively. The relatively low prevalence in the current study may be due to the fact that there is low utilization of health care services in our environment. Perhaps there is a true low prevalence in this environment because of traditional and religious practices of early marriage, early child birth and passion for large family size which are protective factors to ovarian tumors. Repeated stimulation of the ovarian epithelium has been suspected to be a predisposing factor for malignant

transformation⁷. Thus increased parity will have a protective effect on the development of ovarian tumors. This was evident in our study as women having low parity of 0 and 1 had maximum number of ovarian cancer while the lowest number of women with the disease were found to have a parity of > 5 (Grand multipara). This is in conformity with most of the previous studies^{13, 14, 15}. The commonest presenting symptoms were abdominal swelling, pain and GIT symptoms. This is in keeping with previous studies^{13, 14, 15}. Majority of the women (84.5%) among the study group presented in advanced stage of the disease. This is similar to the findings in Ibadan and Benin.^{13, 14, 15} This may not be unconnected to the fact that the disease has no pathognomonic symptoms or pre-invasive lesions and as such difficult to identify the earlier stages of the disease especially in our environment where people are reluctant to access health services.

The commonest Histologic type of ovarian cancer in this study was serous cystadenocarcinoma which was similar to what was found in many other studies.^{7, 16, 17, 12} The study demonstrates that serous cystadenocarcinoma was the commonest surface epithelial cancer followed by granulosa cell tumour then mucinous cystadenocarcinoma. However, in other studies mucinous cystadenocarcinoma was the commonest malignant tumour followed by serous cystadenocarcinoma^{18, 19}.

All the patients had staging laparotomy where 15.4% that presented with stages I and II benefited from optimal surgery. Despite the late presentation of the majority of patients in this series 28.2% were alive as at last visit before the extraction of data while 10.3% were lost to follow up. 20.5% SAMA during post operative cytotoxic chemotherapy

because of financial constraints. It was observed in the study that most patients that presented late did well on combination chemotherapy which might have improved the outcome of the patients.

In conclusion serous cystadenocarcinoma is the most common ovarian tumour. Abdominal swelling, abdominal pain and GIT symptoms were the commonest presenting symptoms. A higher percentage of women present in advanced disease in our environment. Health education programmes in the community is necessary to create awareness about the disease which may improve poor health seeking behaviour of the community.

References

1. H. Gabra. Epithelial ovarian cancer In Edmonds D.K (ed), Dewhurst's text book of obstetrics and gynaecology for post graduate. Blackwell science (pub), 7th ed. 2007; 625-635.
2. GG Swamy and N Satyanarayana. Clinicopathological analysis of ovarian tumours- A study on five years samples. Nepal Med Coll J 2010; 12(4): 221-223.
3. M.O. Buhari, B.A. Ojo, M.A. Ijaiya and P.A. Aboyeji. Ovarian Cancers in Ilorin, Nigeria. Nig. Qt J. Hosp. Med. 2005; 15 (3): 127-130.
4. S.A. Malami, U.H. Pindiga, B.A. Abimiku, I.A. Mungadi, A.D. Abdullahi. A. Dauda and S.M Sahabi. Pattern of malignant Diseases in Sokoto, North Western Nigeria. J. Med. Sci. 2007; 7 : 1033-1038.
5. A. Mohammed, S.A. Ahmed, OP. Oluwole and S. Avidine, Malignant Tumours of the female Genital tract in Zaria, Nigeria, Analysis of 513 cases, Annals of African medicine, Vol.5, No.2, 2006; 93-96.

6. Pindiga U.H, El-nafaty A.U, Ekanem I.A. Female genital malignancies in Maiduguri, Nigeria; A review of 328 cases. Trop. J. Obst. Gyn. 1999; 16 (1): 52-56.
7. S Saeed and M Akram. Epithelial ovarian cancer; Epidemiology and clinicopathological features. Professional Med J 2012;19(1):040-045.
8. Dinh T.U, Hannigan E.U, Doherty M.G. Epithelial ovarian cancer in clinical gynaecologic review 3rd edition Fletcher J. (Ed) Mosby London. 2003: 74-76.
9. Disals P.J, Tewari K.S. Recent advancement in the treatment of epithelial ovarian cancer. J. Obstet. Gynaecol. Research. 2001; 27 (2): 61-76.
10. Schutz H.S, Benedicic C, Haas J. Tamussind K., Petru E. Stage IV Ovarian Cancer. Prognostic factors and survival beyond 5 years. Anti cancer Res. 2001; 21 (5): 3729-3732.
11. Ugwu EO, Ifeirikigwe ES, Okeke TC, Ugwu AO, Okezike OA, Agu PU. Pattern of gynaecological cancers in University of Nigeria Teaching Hospital in South Eastern Nigeria. Niger J Med 2011;20(2):266-9.
12. Onyiaorah IV, Anunobi CC, Banio AA, Fatima AA, Nwonkwo KC. Histopathological patterns of Ovarian tumours seen in Lagos University Teaching Hospital. A ten year retrospective Study. Nig. QJ Hosp Med 2011;21(2):114-8.
13. Odukogbe A.A, Adebamowo C.A, Ola B, Olayemi O, Oladokun A, Adewole I.F. et al. Ovarian cancer in Ibadan : Characteristics and management, Journal of obstetrics and gynaecology, 2004; 24 (3) : 294-7.
14. Ambareen Khan and KhusroSantan. Presenting sign and symptoms of ovarian cancer at a tertiary hospital. Journal of Pakistan Medical Association. 2010 ; 60 (4): 260-2.
15. Gharoro EP, Eirewele O. Cancer of the ovary at the University of Benin teaching Hospital; a 10 year review 1992-2001, African journal of Medical Sciences; 2006 ; 35 (2): 143-7.
16. Manivasakan J, Arounassalame B. A study of benign adnexal masses. Int J ReprodContraceptObstetGynaecol. 2011;1(1):12-16.
17. Irum S, Zartaj H, Sami S. A comparative analysis of frequency and patterns of ovarian tumours at a tertiary care Hospital between two different study periods (2002-2009). JPMI 2012;26(8)196-200.
18. Malik M. Aziz F. Malignant ovarian tumours. A study of 75 patients. Pak J ObstetGynaecol 1999;12(1):83-86.
19. Jamal S Malik IA, Ahmad M, Mustaq S Khan AH. The pattern of malignant ovarian tumours, a study of 285 consecutive cases at the Armed Forces Institute of Pathology Rawalpindi. Pak J pathol 1993;4(2):107-109.