

# OVARIAN MALIGNANCY AT THE JOS UNIVERSITY TEACHING HOSPITAL, JOS, NORTH CENTRAL NIGERIA.

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## ABSTRACT

### OBJECTIVE:

To establish the relative frequency, age distribution, socio-demographic risk factors, clinical presentation, management and histological variants of ovarian cancer seen within the study period.

### METHODOLOGY:

A retrospective review of all cases of ovarian cancer seen at the Jos University Teaching Hospital, Jos, Plateau State, North Central Nigeria.

**SETTING:** Jos University Teaching Hospital, Jos, Plateau State, North Central Nigeria.

**SUBJECTS:** Women who had ovarian cancer.

**RESULTS:** A total of 26 cases of ovarian cancer were recorded within the study period. 20 case files were available for analysis.

The age range was 20 - 70 years. The average age of developing ovarian cancer is 42.86 ± 2 S.D, Forty percent (40%) of the women (n=9) were nulliparous. Sixty percent (60%) of the patients (n=12) presented with stage IV disease. Seventy five percent (75%) of the patients (n=15) had surgery and chemotherapy as the mode of management. The commonest histological variant is epithelial ovarian cancer as seen in 55% of the cases (n=11).

**CONCLUSION:** Ovarian cancer is a gynecological malignancy that affects women of all age groups. Nulliparity is a significant risk factor. Most of the women present in late

stage disease and this gives credence to the need for a screening method to diagnose early stage of the disease.

**Key words:** Ovarian cancer, Frequency, Clinical features, histology<sup>2</sup>.

## INTRODUCTION

Ovarian cancer is the 3rd commonest gynecological cancer worldwide and the fourth most common cause of cancer death in the world I. It is a major source of morbidity and mortality. Each year, a total of 4200 new cases and 21,000 new cases are detected in England/Wales and U.S.A. Respectively<sup>3</sup>.

In Nigeria, it is the 2nd commonest gynaecological malignancy after cancer of the cervix<sup>4,5,6</sup>. The symptoms are vague and, in to compound the problem, there are no adequate screening methods yet, therefore majority of the patients are diagnosed with advanced stage disease<sup>7,8</sup>.

Various aetiological risk factors have been identified. Age seems to be a consistent risk factor and even in individuals with genetic predisposition, increasing age is an additional risk factor. The median age at diagnosis is 61 years<sup>9</sup>. The highest incidence is in the 41-49 age group<sup>10</sup>. Other aetiological risk factors that have been identified include reduced family size, later age at first conception, family history, use of fertility drugs, patients who have had irradiation to the ovaries, individuals with higher socioeconomic status, and blood group A among others. Protective factors include the use of the oral contraceptive pills (OCP), multiparity, breast-feeding, lower socioeconomic status. Japanese, Hispanic, Chinese or Black women

have a lower risk compared with their Caucasian counterparts. Blood group 0 is also protective.

Surgery remains a corner stone for diagnosis, staging and treatment. In cases of operable tumours, total abdominal hysterectomy and bilateral salpingo-oophorectomy is mandatory. In cases of peritoneal metastasis, a debulking of the tumour and omentectomy as well as post operative radiotherapy is recommended II.

Adjuvant chemotherapy usually comes in the form of paclitaxel and plantinum chemotherapy<sup>12</sup>.

There have been few reports on the socio-demographic characteristics, clinical presentation and management pattern of ovarian cancer in the North central zone of Nigeria. This study was done to review the aforementioned.

**MATERIALS AND METHODS**

The study involves a retrospective review of all cases of ovarian cancer seen at the Jos University Teaching Hospital, Jos from August 2003 to July, 2007. The data were retrieved from the ward records, histopathology records and case files of the patients with ovarian cancer. A total of 26 cases of ovarian cancer were seen within the study period.

Of this number, 20 case files were

available for analysis. Data relating to socio demographic variables, clinical presentation, histologic diagnosis and intervention done were extracted and analyzed.

**RESULTS**

During the study period, a total of 26 case files were sought, 20 were obtained and analyzed giving a percentage of 76.92%. A total of 200 gynaecological malignancies were seen during the study period, thus ovarian cancer contributes 13% to gynaecological malignancies seen in this center (n=26).

The age of patients with ovarian cancer ranged between 20 - 70 years.

The average age for developing ovarian cancer is 42.86 years :i: 2 S.D. 60% of the patients were pre-menopausal (n=12). While 40% of the patients were post menopausal (n=8)

In 75% of the patients, the mode of management was surgery and chemotherapy (n=15), while 25% of the patients had surgery alone (n=5)

The main histological variant of Ovarian cancer from this study is epithelial ovarian cancer in 55% of the cases (n=11). The other histological variants are germ cell malignancy in 30% of cases (n=6), sex cord stromal tumour 15% (n=3).

**TABLE 1: Shows the age distribution of the patients**

Age	No	Percentage (%)
20 29	5	25
30 39	3	15
40 49	4	20
50 59	3	15
60 69	3	15
70 79	2	10
<b>Total</b>	<b>20</b>	<b>100</b>

**TABLE 2: Parity Distribution**

Parity	Number	Percentage
0	8	40
PI-2	5	25
P3-4	2	10
P5	5	20
<b>Total</b>	<b>20</b>	<b>100</b>

**TABLE 3: Distribution of symptoms and signs**

Symptoms/Signs	Number	Percentage
Abdominal distention	12	60
Ascites	12	60
Abdominal pain	5	25
Weight loss	4	20
Constipation	3	15
Vomiting	1	5
Hirsutism	1	5
Lymphadenopathy	1	5

**TABLE 4: Stage of Presentation**

Stage	Number	Percentage
I	Nil	-
II	2	10
III	6	30
IV	12	60

**DISCUSSION**

Ovarian cancer constitutes thirteen percent (13%) of gynaecological malignancy and this is consistent with earlier reports from this centre and neighbouring centres.<sup>4,5,6</sup>

The wide age range of 20 -70 years is typical of ovarian cancer as this malignancy is known to affect women of all age groups. The average age for developing ovarian cancer in the study is 42.86 years. The highest incidence as reported in some studies is in the 40- 49 age group with median age of developing ovarian cancer put at 61 years .

Forty percent (40%) of the patients were nulliparous (n=8), thus demonstrating the fact that nulliparity is a significant risk factor for ovarian cancer. This has been corroborated by the fact that the higher the parity of an individual the lower the risk of ovarian cancer<sup>13</sup>. Although twenty percent (20%) of the patients had high parity (n=5),

the complimentary role of increasing age as a risk factor in these patients with high parity has to be considered.

The commonest clinical feature demonstrated in these patients is abdominal distension and ascites as seen in sixty percent (60%) of these patients (n=12). This is not unexpected as a similar percentage of these patients presented in advanced stages of the disease i.e. when abdominal masses and ascites are the predominant clinical features.

Ovarian cancer is known to present as an advanced stage disease because of the non-availability of adequate screening methods and the vague symptomatology.<sup>8,14</sup>

In seventy-five percent (75%) of the cases (n=15), the mode of management was surgery and chemotherapy. This is the standard mode of management of ovarian cancer in this center, however fifteen percent (15%) (n=5) did not have chemotherapy probably because they could not afford the cost of chemotherapy.

Epithelial Ovarian cancer is the predominant histological variant as it constitutes fifty-five percent (55%) (n=11) of ovarian cancers. The other histological variants are germ cell ovarian tumours (30%) (n=6), and sex cord stromal tumours 15% (n=3). This pattern is in keeping with some other studies done in the northern part of Nigeria where epithelial Ovarian cancer was the predominant histological variant.<sup>4,15</sup>

In conclusion, ovarian cancer is common among women of low parity and most cases present as late stage disease. Appropriate screening methods will help to detect early stages of the disease condition.

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