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Ovarian Cancer: A Retrospective Analysis of Age Distribution, Comorbidities, and Treatment Regimens

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ABSTRACT:
Background:Ovarian cancer is the fifth most common cancer and fourth leading cause of cancer-related deaths in women. The global standardized annual incidence is 9.0 cases per 100,000 population [1.]
Objective: This retrospective study examined the age distribution, comorbidities, and treatment regimensof patients with ovarian cancer.
Methods: The Medical data of 13 ovarian cancer patients treated at a private hospital between 2022 to 2024 were reviewed.
Results:A higher proportion of patients were between the ages of 51 to 60. The most prevalent comorbidities were hypothyroidism and hypertension. The main form of treatment was chemotherapy, and the most often used chemotherapeutic medications were carboplatin and docetaxel.
Conclusion: This study offers important new information about the clinical and demographic characteristics of individuals with ovarian cancer. The results of this study can help improve patient outcomes and guide the creation of individualized treatment plans.
Keywords: ovarian cancer, age distribution, comorbidities, treatment regimen, chemotherapy.

I. INTRODUCTION:

Ovarian cancer is one of the lethal gynaecological diseases endured by women around the globe. It is discerned that ‘‘Ovarian cancer is more than a woman’s disease”. A 2018 GLOBOCAN prediction report reveals that by the year 2040, the incidence and mortality of ovarian cancer may go up to 150,000 cases, making the disease a big reason to worry.The symptomatic signs are vague and can be misinterpreted as other diseases. According to the National Ovarian Cancer Coalition (NOCC) and Cancer Treatment Centres of America, there are more than 30 different types of ovarian cancer, usually classified by originating cell type. It commonly originates from three common cell types, namely surface epithelium cells, germ cells, and stromal cells. However, epithelial ovarian cancers, developed from the cells of the outer surface of the ovary, are more prevalent and account for 85–90% of all ovarian cancers[2].

Ovarian cancer is still the most common cause of cancer-related fatalities in women, even with improvements in diagnostic and treatment techniques.

The purpose of this study was to look into the age distribution, comorbidities,and treatment regimensof patients with ovarian cancer.

II. METHODS AND MATERIALS:

Study Design and Population:This retrospective study investigated the medical records of ovarian cancer patients treated at private hospitals between 2022- 2024.

Data Collection:We gathered clinical and demographic information, such as age, comorbidities, and treatment regimen, from the medical records of our patients. We also looked at the medication use and chemotherapy schedules of the individuals.

Age Distribution Analysis: Six age categories were used to group the patients: 31–40, 41–50, 51–60, 61–70, 71–80, and 81–90. The proportion of patients in each age group was determined.

Comorbidity Analysis:Among the patients, we found concomitant conditions such as hypothyroidism, diabetes mellitus, and hypertension. The proportion of patients with each comorbidity was determined.

Treatment Regimen Analysis:We examined the treatment outcomes of the patients, including their drug usage patterns and chemotherapy regimens.

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Data Quality Control: By confirming patients' medical records and chemotherapy schedules, we were able to guarantee the quality of the data. We also looked for discrepancies and missing data.

Materials:

- Patients' medical records
- Chemotherapy regimens and drug usage patterns

III. RESULTS AND DISCUSSION:

The present study's findings indicate that ovarian cancer is most prevalent among women aged 51-60 years, accounting for 46.15% of all cases. which have reported a higher incidence of ovarian cancer in this age group. The study found that 66.66% of patients with ovarian cancer had hypertension.

The treatment patterns observed in this study, with chemotherapy being the most frequently selected treatment option (69.23%), are consistent with current clinical practice guidelines.

Chemotherapeutic drugs like docetaxel and carboplatin are utilized 42.30% of the time. Of them, docetaxel-120mg and carboplatin-450mg were used more frequently for treatment. The patient was mostly treated with combinationtherapy. 11 patients received docetaxel+carboplatin combination, and 2 patients received paclitaxel+cisplatin combination.

Variables	no. of patients(n)	percentage(%)
Age group(year)		
31-40	0	0%
41-50	2	15.38%
51-60	6	46.15%
61-70	4	30.77%
71-80	0	0%
81-90	1	7.69%
Total	13	
Co-morbid		
Hypertension	8	66.6%
Diabetes mellitus	0	0%
Hypothyroidism	4	33.3%
Others	0	0%
Cancer therapy		
Surgical therapy	0	0%
Radiation therapy	0	0%
Chemotherapy	9	69.23%
surgical chemotherapy	0	0%
Palliative chemotherapy	0	0%
Adjuvant chemotherapy	1	7.69%
Neoadjuvant chemotherapy	3	23.08%
Palliative surgery	0	0%
Surgical adjuvant chemotherapy	0	0%
Surgical neoadjuvant chemotherapy	0	0%

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Drug		
Docetaxel	11	42.30%
Doxorubicin	0	0%
Cyclophosphamide	0	0%
5-fluorouracil	0	0%
Carboplatin	11	42.30%
Cisplatin	2	7.69%
Paclitaxel	2	7.69%
Oxalitaxel	0	0%
Gemcitabine	0	0%

TABLE 1 Analysis of ovarian cancer

FIGURE 1 Analysis of the percentage of ovarian cancer based on age

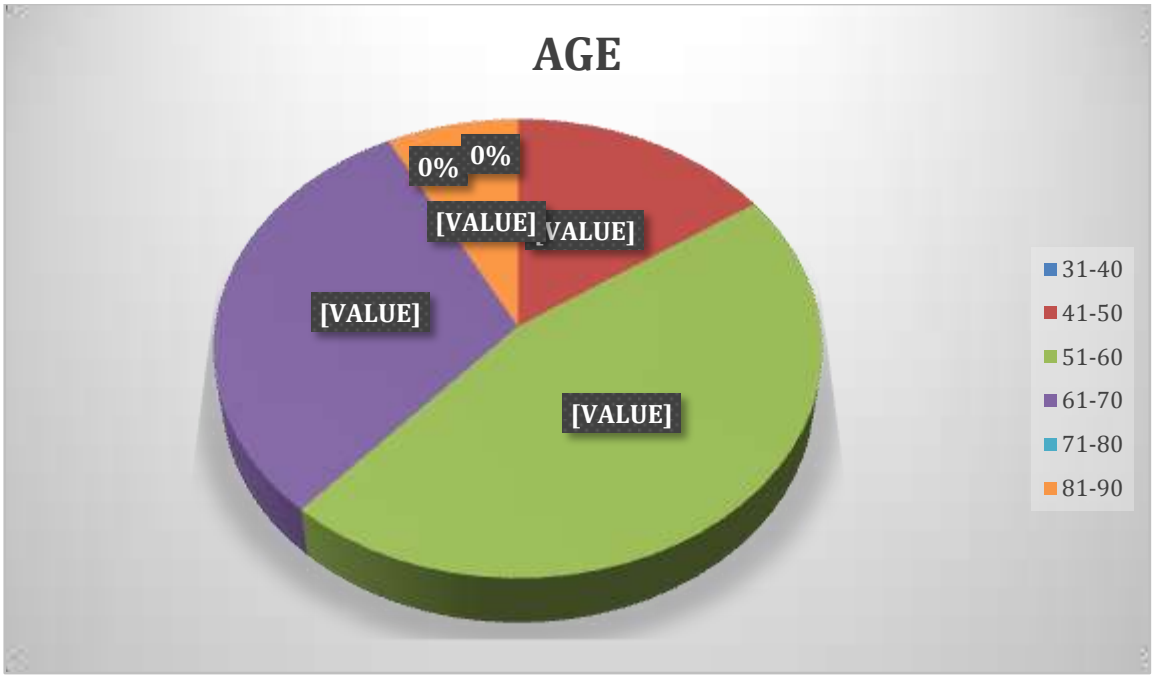

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FIGURE 2 Analysis of comorbid conditions among ovarian cancer survivors

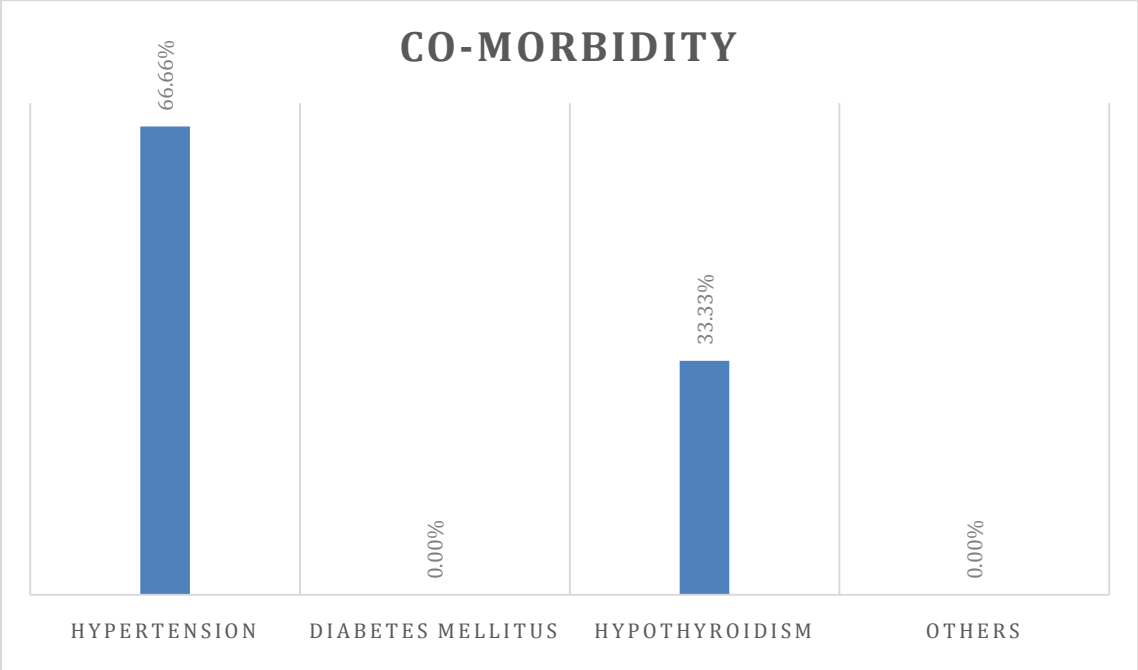
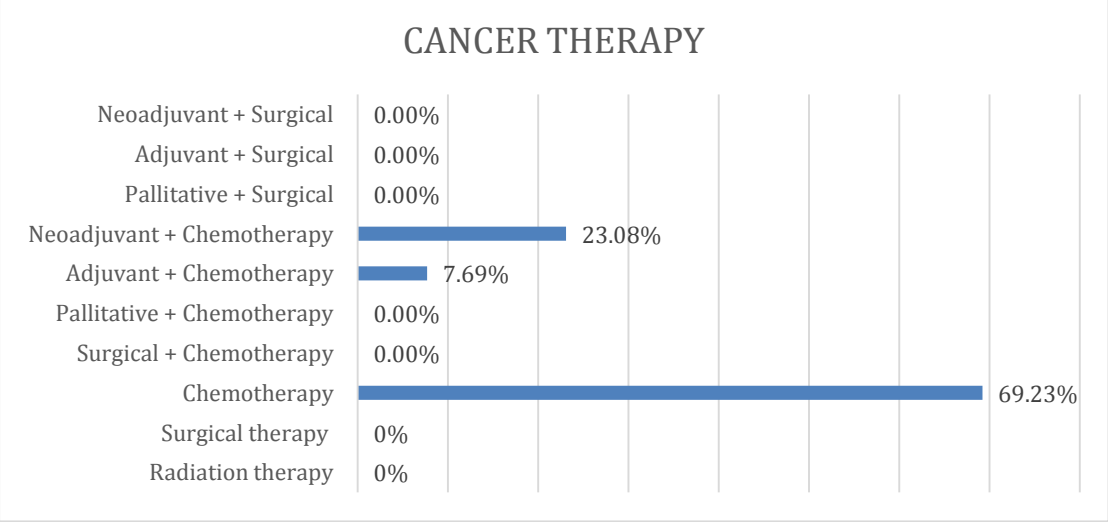


FIGURE 3 Analysis of cancer therapy in ovarian cancer treatment



International Journal of Pharmaceutical Research and Applications
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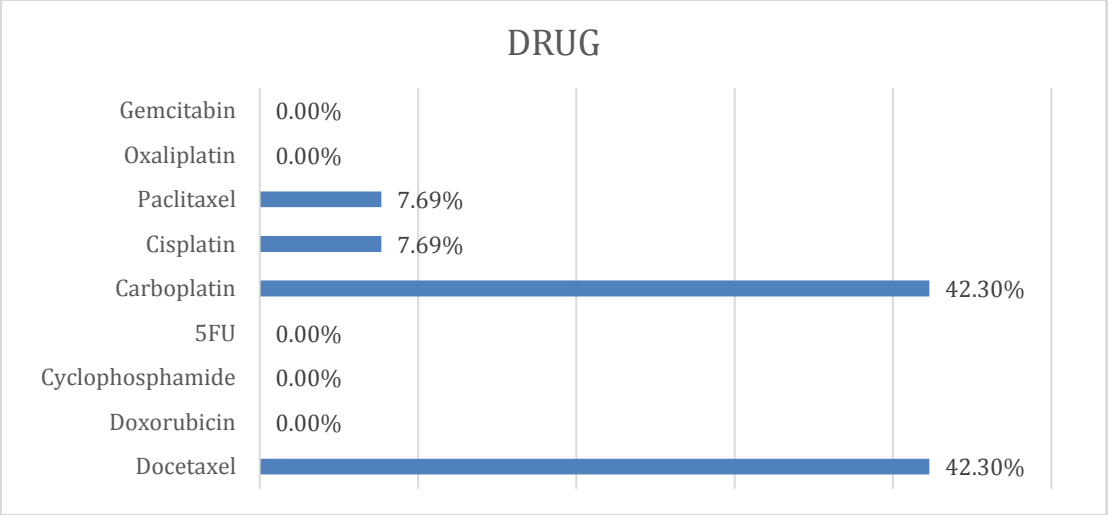
FIGURE 4 Analysis of chemotherapeutic drugs in ovarian cancer treatment



IV. CONCLUSION:

The age distribution, comorbidities, and treatment results of patients with ovarian cancer were examined in this retrospective analysis. According to our data, the majority of patients were between the ages of 51 to 60, and the most prevalent comorbidities were hypothyroidism and hypertension. The main form of treatment was chemotherapy, with the most commonly used chemotherapeutic drugs being carboplatin and docetaxel.

The findings of our study support those of other studies, emphasizing the significance of comprehending the clinical and demographic traits of patients with ovarian cancer. These understandings can help lower mortality ratesand guide the creation of individualized treatment plans.

The study's limited sample size and retrospective design are among its drawbacks. Future studies should explore the effectiveness and additional factors that influence ovarian cancer treatment outcomes. We will look into cancer care in specific populations, such as children and pregnant people.

To sum up, this study adds to the body of knowledge already available on ovarian cancer by highlighting the necessity of individualized treatment plans that take into consideration each patient's particular traits. We can endeavour to improve patient care and outcomes by deepening our awareness of the complexity of ovarian cancer.

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