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Research Article

A Clinicopathological Study of Malignant Ovarian Tumors

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Abstract: Ovarian cancer is the commonest cause of death among all gynecological cancers.
Material and Method: This was a retrospective 5year review of 61 cases of histologically diagnosed ovarian cancer admitted and treated in the Gynecology department of Rajindra hospital from January 1, 2011 to December 31, 2015.
Results and Conclusion: This 5 year study showed that the mean age of presentation of ovarian malignancy was 46.9 years and was 49.3 years if germ cell tumours are excluded. Epithelial type was most common (78.69%). Germ cell tumors were common in adolescents and young adults. The commonest modes of presentation were abdominal pain and distention. Commonest histotype was serous cyst adenocarcinoma. At the time of diagnosis half of patients (49.18%) with malignant tumors were in advanced stage. 5year survival was 90% in early cases (stageI&II) & only 20% in those diagnosed in late stage (StageIII&IV). Early diagnosis and appropriate management can reduce morbidity and mortality.

Keywords: Malignant ovarian tumor · Staging · Prognosis

Introduction

Ovarian cancer is the fourth most common cause of cancer deaths worldwide[1] and also the commonest cause of death among all gynecological cancers.[2,3,4,5] The very high case fatality rate for ovarian cancer is partly because the condition usually presents in advanced stages of the disease.[4] Epithelial ovarian cancer is the commonest type of ovarian cancer and is known to be a disease of postmenopausal women.[6] A global report by the International Federation of Gynecology and Obstetrics (FIGO) has noted that the highest incidence of ovarian cancer was moving towards a younger age group although the majority of patients with epithelial cancer were more than 50 years in age.[7] The reasons for the increased occurrence of epithelial ovarian cancer in younger women are controversial. Risk factors mentioned include an increase in ovulation induction in assisted reproduction techniques, nulliparity and late onset of childbearing due to increasing number of females in the workforce [8] There is emerging evidence that ovarian cancer may now be commoner in developing than developed countries[9]. Advanced stage of disease at the time of diagnosis, inappropriate management and poor compliance to therapy are responsible for dismal survival rates[10].

Materials and Method

This was a retrospective 5year review of all cases of histologically diagnosed ovarian cancer treated at Rajindra Hospital, Patiala. The study population included all women admitted and treated in the Gynecology department of the hospital from January 1, 2011 to December 31, 2015. The case notes of these selected cases were retrieved from the records department and data relating to age, parity, clinical presentation and treatment were abstracted. The patients were followed up in clinic and summoned telephonically. The main outcome measures were the prevalence based on socio-demographic and disease characteristics, the proportions of cases that received surgery and chemotherapy, as well as the estimated case fatality rate for these cases of ovarian cancer.

Results & Discussion

The total number of histologically diagnosed cases of ovarian malignancy reported during the above said period was 61.
Out of 61 patients, 48 (78.69%) were having epithelial type of ovarian cancer,6 (9.83%)sex cord tumor, 5 (8.19%)germ cell type and 2(2.31%) were of krukenberg type. Padubidri and Daftary found the incidences of epithelial,germ cell type and metastatic to be 80%, 15% and 5% which closely matched with those of present study [11].
Most common type of epithelial carcinoma was serous cystadenocarcinoma (79.16%) followed by mucinous cystadenocarcinoma (20.84%). Similar results were reported by Prabhakar et al [12].
In our study mean age of presentation of ovarian cancer was 46.9 years and was 49.31 years if germ cell tumours are excluded. Okugawa et al found the mean age of malignat tumors to be 51.9 years[13]. Mean age of presentation of different types of ovarian cancer was 50.43 years, 42 years,19.8 years and 41 years for epithelial, sex cord, germ

cell and krukenberg type respectively . In our study most common tumor in adolescents and young adults is germ cell tumor. These results are similar to Mencezer et al study [14].

Nulliparity has been known to be a strong risk factor for epithelial ovarian cancer [8]; however, in our study all patients with epithelial type were parous. 18.7% were primiparas. Saeed et al also found no correlation with parity in malignant ovarian tumors[15]. 80% of patients with germ cell tumor were unmarried and nulliparous. Two patients of germ cell type were premenarchal and 11years old.

In our study 62.3% presented with pain lower abdomen and distention Chan et al found abdominal pain, distension and mass as common presentations in malignant tumor[16].

In 30 patients (49.2%) size of ovarian mass was between 10-20 cm. 13 cases (21.31%) had size of tumor 5-10 cm. In 4 cases (6.5%) tumor size was less than 5 cm. In our study mean size was 12.3 cm.Okugawa found mean size of malignant tumours to be13.6cm(13).

Ascites was present in 47.54% of patients with malignant ovarian tumour . Shen-Gunther and Mannel found ascites in 42% cases with malignant tumor[18].

Tumor was bilateral at the time of presentation in 30 patients (49.18%)in present study whereas Udea et al reported bilaterality in 20% malignant tumors only [19].

37(60.3%) patients had CA125 raised more than 35u/ml.The level of CA125 was 35-250u/ml,250-800 and more than 800u/ml in 51.57%,24.46% and 23.9% patients respectively.In 4 patients level of CA125 was more than 4000u/ml. Australian Ovarian Cancer Research Programme supports CA125 evaluation in addition to pelvic examination, transvaginal USG for early detection and screening of ovarian tumors[17]

31 (50.82%) patients were in early stage ie 24(39.34%)in stage I and 7 (11.47%)in stage II. 30(49.18%) patients were in advanced stage at the time of presentation including 13(21.31%) in stage III and 17 (27.86%) in stage IV. Goff et al found 70% ovarian cancer in stage III and IV at time of diagnosis[20]. The pattern of late presentation of cases in advanced stages appears to be world wide phenomena and poses a surgical challenge and results in poor treatment outcome[7].

In 52 patients (85.24%) surgical staging and maximal debulking done. 7(11.47%) patients had inoperable tumor where surgical staging and biopsy was done. Two patients of 11 years of age with germ cell tumor had conservative surgery with excision of ovarian mass and cystectomy respectively.All patients were given post operative chemotherapy depending upon stage and type of malignancy.

Follow up of patients was by clinical examination , ultrasonography , serum CA125 assay and other imaging modalities whenever indicated.

In early stage cancer(stageI& s tageII) 100% survival was observed upto 2years whereas survival more than 3years was 82%.Survival more than 5years was 90%.

In late stage cases(stageIII & stageIV) 25% survival was observed upto 2 years & 20% for more than 3years.Whereas 5year survival was 20% only.

The five year survival rate in our study was 90% ,90%, 20% and 20% for stageI-IV respectively.

The 5year survival rates for tumor stage I-IV are 85%, 71%, 41% and 22 % respectively as per FIGO[7].

Conclusion

This 5 year study showed that the mean age of presentation of ovarian malignancy was 46.9 years and was 49.3.years if germ cell tumours are excluded. Epithelial type was most common (78.69%).Germ cell tumors were common in adolescents and young adults. The commonest modes of presentation were abdominal pain and distention. Commonest histiotype was serous cyst adenocarcinoma. At the time of diagnosis half of patients (49.18%) with malignant tumors were in advanced stage.5year survival was 90% in early cases (stageI&II) & only 20% in those diagnosed in late stage(StageIII&IV). Early diagnosis and treatment can reduce morbidity and mortality.

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