Clinicopathologic Features of Epithelial Ovarian Cancer

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Objectives: This retrospective study was conducted at the Clinical Oncology Department of Mayo Hospital with the objectives to find out the frequency of different clinicopathologic features and to see the pattern of treatment and its outcome. **Patients and methods:** From 2000 to 2004, 375 patients were seen at the Department of Clinical Oncology, Mayo hospital, Lahore. A proforma was designed to document the age, parity, histopathology, stage, grade, clinical features, and family history. The information was obtained from the medical record section. Stage was assigned according to FIGO staging system. All patients with histopathologically proven epithelial ovarian cancer were included. **Results:** Epithelial ovarian cancer constituted 8.4 % of all female cancers. The median age at presentation was 51 years (range, 21-75 years). All patients were symptomatic before the diagnosis, with ascites being the most common single manifestation (38.4 %) and in patients with multiple signs and symptoms abdominal symptoms were most commonly seen (71.5 %). Median pre operative CA125 level was 218 U/ml.).Optimal cytoreduction was seen in 36.5 % only, and 63.5% patients presented after sub-optimal cytoreduction. Majority of the patients (82.7%) presented in late stages (III & IV) and only 17.3 % in early stages (I&II). Most common histopathologic type of invasive cancer was serous cystadenocarcinoma , seen in 247(72.4%) patients. Endometrioid tumors were seen in very few (3.8 %).High grade tumors were the most common. Most women were multiparous and only 16.5% were nulliparous. Post operative treatment primarily included cisplatin based combination chemotherapy. One hundred and twenty seven patients were re treated for recurrent or residual disease and 68 were referred for secondary cytoreduction and were given second line therapy subsequently. **Conclusion:** Epithelial ovarian cancer is not a silent disease, most patients are symptomatic and present in an advanced stage. In majority of the patients optimal cytoreduction is not achieved. Cystadenocarcinoma is the predominant histology and the endometrioid variety is seen only in few.

Key words: Epithelial ovarian cancer, cytoreduction, clinico-pathologic features.

Ovarian cancer is the third most common cancer in females in Pakistan. The age-standardized incidence rate is 9.6 and it constitutes 5.6 % of all female cancers[1]. Ovarian cancer is the fifth most common malignancy of females in the United States and there it constitutes 4 % of all female cancers[2]. Globally it ranks as the 6th common cancer in females. Majority of the ovarian cancers in adults are of epithelial origin[3].

The likelihood of developing ovarian cancer increases with age. Most ovarian cancers occur in women over the age of 50, with the highest risk in women over 70 years of age[2]. Other factors associated with an increased risk of epithelial cancer include Caucasian race, nulliparity, early age of menarche, late age of menopause, personal history of breast cancer or a family history of either breast or ovarian cancer[4,9]. Multiparity and use of oral contraceptive pill is protective[10,12]. Tubal ligation, hysterectomy and breast feeding are also protective[6,10,13,14]. Studies on estrogen replacement therapy and use of talc give conflicting results[10,15,17]. The role of diet and obesity in ovarian cancer is unsettled.

Hereditary ovarian cancer syndromes, include site specific ovarian cancer, breast-ovarian cancer, and the cancer family syndrome (Lynch syndrome II)[18,19]. Site-specific ovarian and breast-ovarian cancer syndromes are related to two genetic susceptibility genes, BRCA I and BRCA II, which account for as many as 90 % of hereditary ovarian cancers[20-21]. The Lynch syndrome II describes hereditary nonpolyposis colorectal cancer associated with other cancers, in particular, endometrial and ovarian cancers, and is related to the mutations in the genes involved in DNA mismatch repair[22-23].

Ninety five percent women have some non-specific symptoms before diagnosis, however, symptoms are vague and ill defined, therefore, majority of patients are diagnosed in an advanced stage[24]. Tumor marker CA125 has 70 % sensitivity, 98.6 % specificity but has a high false positive rate and a low positive predictive value and therefore is not a useful test for mass screening[25-27].

This retrospective study was conducted at the Clinical Oncology department of Mayo Hospital with the objective to find out the frequency of different clinicopathological features and to see the pattern of treatment and its outcome.

Patients and methods:

We conducted this retrospective study on ovarian cancer patients who presented to Mayo Hospital during the years 2000-2004. A proforma was designed to document the age, area of residence, parity, clinical features, histopathologic type, stage, grade, and family history. All this information was obtained from the medical record section. Clinical features were further analyzed by a careful review of medical histories and patients were identified as having either single or multiple symptoms. Multiple symptoms were divided into four different groups of abdominal, gastrointestinal, genitourinary and pain category. Abdominal category included mass, ascites and