

Clinical Experience of Patients Presenting with Epithelial Ovarian Carcinoma

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Aims: We present our experience with epithelial ovarian carcinoma, its histopathology and relationship with age, parity and breast-feeding practices as seen in our clinical practice. **Design:** Descriptive study. **Place and Duration of study:** All diagnosed cases of ovarian epithelial carcinoma during January 2001 to December 2002 in obstetrics and gynecology unit II of Nishter Hospital Multan and MINAR (Multan Institute of Nuclear Medicine and Radiotherapy) were included in this study. **Subject and Methods:** Clinical records of diagnosed cases of ovarian carcinoma were reviewed and data relating to stage at presentation, histopathology, age, parity and breast feeding were analyzed. **Results:** during this study period 50 patients of epithelial carcinoma were diagnosed. 24 (48%) were of serous adenocarcinoma, 18(36%) had mucinous adenocarcinoma. 6 (12%) patients had endometrioid and remaining 2(4%) were diagnosed as the case of clear cell carcinoma. The mean age at presentation was 51 years. 4 patients were only of <23 years of age. 46 patients were parous and give history of breast feeding with varying duration of 4 to 15 months. 38 (76%) patients had stage III disease while 8(16%) had stage IV disease and only 4(8%) patients had stage II disease at time of presentation. **Conclusion:** There were some unusual presenting features of ovarian carcinoma in our patients. It is seen in many young parous women and probably breast feeding does not confer any protective effect. However the numbers of cases in our study are too small to draw any conclusions and more studies are needed.

Key words: Carcinoma of ovary, Endometriosis, Parity.

The frequency of ovarian carcinoma differs widely among different geographic regions and ethnic groups. The incidence is high in Europe and the United States and low in Japan¹. In 70% of the cases disease is diagnosed in advanced stage. Ovarian cancer is the fifth leading cause of cancer related deaths in women². Majority of the ovarian cancer are found in postmenopausal women and only 10-15% seen in premenopausal women³. The median age for the epithelial ovarian cancer is between 60 and 65 years. Less than 1% of the epithelial cancers occur at 30 years or younger and most of malignancies in these patients are germ cell tumors^{4, 5}. Malignant ovarian epithelial tumors accounts for 85% of the ovarian malignancies. In literature nulliparous women are said to be at high risk when compared with parous women and women using oral contraceptives, both these factors interrupts the ovarian cycles. The disease is infrequent before puberty and the incidence is elevated after menopause suggesting a hormonal link^{6, 7}.

The majority of the cases are sporadic and only 5-10 % are familial. Nulliparity and the refractory infertility are the most significant risk factors. A number of reproductive and contraceptive factors are found to reduce the risk of ovarian cancer including gravidity, breast feeding and oral contraceptive. Certain environmental factors and medical conditions increases the risk are endometriosis, ovarian cysts and hyperthyroidism⁸. Patients with early stage cancer have better 5 year survival rate which mean that early detection may improve the prognosis⁹. Screening by measuring Ca125 level and performing transvaginal ultrasonography provides the highest specificity and

positive predictive values for the detection of ovarian cancer. The present study aims to present our experience with epithelial ovarian cancer, paying particular attentions to the histological types and the relationship with age , parity and breast feeding.

Material and methods:

During this study period (January 2001 to December 2002) 50 patients admitted in obstetrics and gynecology unit II of Nishter Hospital Multan and Multan Institute of Nuclear Medicine and Radiotherapy (MINAR) were diagnosed to have epithelial ovarian cancers. The clinical records of these patients were reviewed and data relating to age, parity, breast feeding practices, histological type and clinical stage of the tumors were abstracted. All these patients were investigated especially with trans abdominal ultrasound and Ca125 tumors markers. All patients underwent laparotomy and FIGO staging was done.

Results:

During this study period 50 patients of epithelial carcinoma were diagnosed. 24(48%) were of serous adenocarcinoma, 18(36%) had mucinous adenocarcinoma, 6(12%) patients had endometrioid and remaining 2(4%) were diagnosed as the case of clear cell carcinoma. The mean age at presentation was 51 years. 4 patients were less than 30 years of age. 46 patients were parous and gave history of breast feeding with varying duration of 4 to 15 months. 38(76%) patients had stage III disease, while 8(16%) had stage IV disease and only 4(8%) patients had stage II disease at time of presentation

Discussion:

Ovarian tumors account for a considerable proportion of clinically important tumors in females. They manifest a wide spectrum of clinical, morphological and histological features and in most of the patients disease is diagnosed at advanced stage¹⁰. A reliable mean of early detection for ovarian cancer has not yet been discovered and the cause of disease is unclear⁷. The discovery of non metastatic malignancy relies on the pelvic examination but even small tumors confined to the pelvis may have metastasized when they are palpated. The use of serum markers especially Ca125 can help in making diagnosis and their role in early diagnosis being investigated⁸. Pelvic ultrasonography using the transvaginal approach appears to be helpful in some cases and its use in the screening and diagnosis of the disease is being studied. The mean age for epithelial tumors, the most common histological type as mentioned in literature is between 60 and 65 years¹¹. The fact that ovarian cancer is the disease of increasing age is clearly shown in Data from US surveillance Epidemiology and End Result (SEER) data base⁹. The incidence is low under 40 year of age but rises significantly through the fifth decade. Although presently most cases are diagnosed in younger age groups, the total number of the cases is expected to increase as the elderly population will increase in the next two to three decades¹⁰.

However, the peak incidence in our patients was observed between fourth and fifth decade. We also observed that 6.06 %of our patients with epithelial ovarian cancer were of less than 30 years and the youngest case in this series was a 22 years old female. One of the reasons of this could also be less average age in this part of the world as compared to the western countries. However, dietary and environmental factors may also be involved. There were four case of clear cell carcinoma in our series which is often associated with pelvic and ovarian endometriosis. However, we were unable to document any such relationship in our patients.

Majority of patient involved in our study were multiparous and these women breast fed their babies for a

variable period of time. Although many studies have shown that increasing parity and breast feeding confer some protection against the ovarian carcinoma but our study depicts that increasing parity or breast feeding did not decrease the risk to this malignancy^{11, 12}. A study done at National Cancer Institute Karachi¹³ showed that in patients of epithelial ovarian cancer known risk factors such that early menarche, late menopause, Nulliparity, lack of lactation were uncommonly seen and patient presented at younger age. In a prospective review of the fifty cases of the genital tract cancer done at Lady Reading hospital Peshawar, carcinoma of ovary is commonest malignancy¹⁴. Again it may be attributed to a changing trend due to dietary and environmental factors but more studies are awaited to support this claim.

Graphic presentation of patient's date

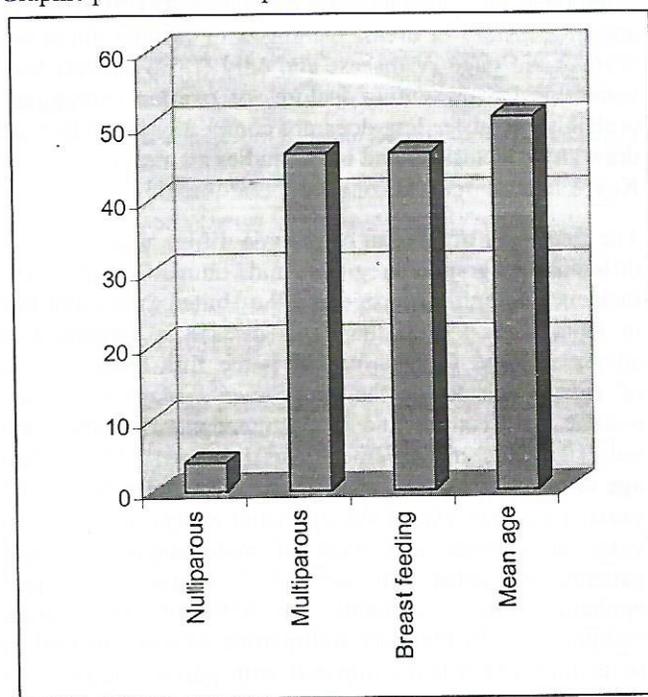


Table 1: age distribution of cases

Histopathological Classification	Age Groups in years						
	0-10	11-20	21-30	31-40	41-50	51-60	61-70
Serous adenocarcinoma (n=24)	-	-	2	0	8	12	2
Mucinous adenocarcinoma (n=18)	-	-	1	0	5	10	2
Endometroid carcinoma (n=6)	-	-	1	0	3	2	0
clear cell carcinoma (n=2)	-	-	0	0	0	2	0
Total n=50	-	-	4	0	16	26	4

Conclusion:

During this small hospital based study it was observed that there are some unusual presenting features of ovarian carcinoma in Pakistani population. In contrast to this belief that ovarian cancer is a disease of old age, it is now seen in

younger females. Increasing parity and breast feeding probably does not confer a protective effect, how ever more studies are awaited to support this claim. Majority of the patients presented with advanced stage disease which is an important factor responsible for poor prognosis.

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