# PREVALENCE AND MANAGEMENT OF OVARIAN TUMOURS IN WOMEN AND C HILDREN HOSPITAL ABBOTTABAD

IQBAL ALAM, FAREESA WAQAR, ALAM KHAN AND NAZAKAT BEGUM

Department Obstetrics and Gynecology, Ayub Medical College, Abbottabad * Ayub Teaching Hospital, Abbottabad.

***Background:*** I he purposes of study was to compare world incidence of ovarian tumours whether benign or malignant with that of 'our unit. We have also discussed management of all these patients at our center. ***Results:*** In our unit out of total 1400 admissions in 24 months. 26 had ovarian tumours, out of these 6 were malignant. The overall malignancy in our unit was 23% as compared to 15% of overall world incidence 24 of these patients, were admitted through the OPD with advanced size of tumours. None of them previously had any checkup at proper Gynecological Centers. AH these 24 were admitted to the ward, investigated, operated and after receiving histopathology reports were further managed accordingly. Two patients had torsion of ovarian tumour and were admitted through emergency and operated as emergency cases in our study group the majority. 77% had benign ovarian tumours in which simple salpingoophorectomies was performed.

## INTRODUCTION

The ovary gives rise to a wider variety of tumours than any other organ in the body These generally present to the clinician, often not to the gynecologist. The presentation is in a number of different ways, the symptoms may or may not be associated with the lesions. The enlargement may be such as to produce a pelvic swelling or if large, a tumour which can be felt in the abdomen. The tumours may' be solid, cystic or a mixture of both. Tumours may be benign, malignant or borderline.

The diagnostic problems associated with smaller cysts are increased by the development of functional cysts due to alternations in the follicular system Ovarian malignancy accounts for almost 25% of gynecological cancer and more important 50% of all deaths from cancer of the female genital tract.[1] Inspite of radical surgery and cytotoxic therapy the overall 5-years survival rate has changed little in recent years and remains at around 25-30%'. Ovarian cancer without doubt presents the greatest challenge to the gynecologist. Because of the decreased incidence of ovarian carcinoma and relatively high cost of screening procedure, the benefit of ovarian cancer screening is still questionable[2].

## MATERIALS AND METHODS

The study was conducted in unit "A" of the Department of Obstetrics and Gynaecology at Women and Children Hospital Abbottabad from January 1994 to December 1995.

Patients admitted with the clinical diagnosis of ovarian cyst whether throughout-patient's department or emergency department were included A detailed history was recorded and examination.

done. Ultrasound was performed in all cases All the patients were operated upon, the diagnosis of malignant and benign ovarian tumour was confirmed on histopathology. The results were compiled using the patient records

## RESULTS

In a 24 months' study carried out at our center between January 1994 and December 1995, there were 1400 gynecological admissions. Out of which 26 cases were ovarian cysts. Six out of these were found to be malignant, confirmed on histopathology.

Twenty-four patients were admitted through OPD and two in emergency as case of acute abdomen (twisted ovarian cyst). The average age of these patients was 36.3 years. The oldest patient was 65 years while the youngest one was of 15 years. In all patients after clinical assessment ultrasound was performed. In all patient's operation was performed The abdomen was opened by midline incisions Right ovarian cyst was found in 14 (38%) cases while left was found in 10 (38%) cases. Bilateral tumours were found in 2 (9%) cases. The size of tumour was more than 12 cm in 22 (85%) patients. In 4 (15%) patients the size of tumour was between 7-12 cm. We made clinical diagnosis of benign tumour in 20 patients and malignant ovarian tumour in 6 cases. The histopathology reports proved the same.

In our study group the majority 77% had benign ovarian tumours in which simple salpingoophorectomies was performed. The other 23% had malignant disease and underwent total abdominal hysterectomy, bilateral salpingoophorectomies and omentectomy. The patients with malignancy were further treated with adjuvant therapy

(Chemotherapy). All were given cisplatium, cyclophosphamide, Adriamycin in a combination.
All the patients were called for follow up. One patient with benign ovarian tumour was lost during the follow up period.

**DISCISSION**

Epithelial ovarian cancer is the most common malignancy of female genital attract and in contrast to other gynecological malignancies the independence and mortality rate for ovarian cancer is rising.

In United Kingdom the incidence of ovarian cancer is rising and has now become the fourth leading cause of cancer deaths among women. Over the past 30 years the management of ovarian cancer has escalated but no significance change in the survival rate has been seen[4]. Ovarian cancer is the 6th leading cause of death in the USA[5]. It accounts for more deaths annually than cancer of the uterine cervix and corpus together. In the USA the lifetime risk of developing ovarian cancer is 14%. Considering all age groups approximately 15% of ovarian tumours are malignant.

The incidence of malignance in out unit was 23%. I he disease is encountered more often in the Western world and highest Incidence is in Sweden followed by Norway 4 -24% of ovarian masses are discovered before menopause and between 19% and 63% after menopause I he annual incidence Increases with age. In women between JO-St) sears it is 20 100,000. while in those between 50-75 sears it is 10 100,000[8].

With the exception of teratomas and special sex cell tumours most primary ovarian tumours are found in women aged 40-60 years. In bur studs most of these patients were among the same age group It has been estimated that 5-10% of ovarian epithelial ovarian carcinoma are hereditary with an autosomal dominant made of genetic transmission No direct relationship has seen established between industrial pollution. cigarette smoking and ovarian cancer /Asbestos and Talc have both been suspected of having *a* role in causing ovarian cancer early age at first pregnancy and late menopause are associated with an increased risk of trauma to the ovary caused by repeated ovulation and for this same reason oral contraceptive pills protects against development of carcinoma" A high quantity of fiber and vitamin A in diet predisposes to development of carcinoma ovary. Women with breast carcinoma have twice more chance of developing ovarian carcinoma.
Ovarian tumours are amazingly quiet and rarely give rise to symptoms other than those induced mechanically, such as abdominal discomfort and an increase in abdominal girth. The insidious nature of the symptoms account for the late presentation of women with advanced disease[7].

Complications like torsion, rupture, hemorrhage, infections, and malignant change can lead to acute or sub-acute abdominal symptoms. Benign cysts on long pedicles undergo torsion. Acute or sub-acute pain is associated with nausea or vomiting. The patient may have an elevated pule rate. Tenderness guarding or rigidity of the lower abdomen may be present.

The standard surgical treatment of apparent Stage-I disease is to perform a total abdominal hysterectomy. Bilateral salpingoophorectomy and omentectomy. De-bling surgery is carried out for more advanced disease and as much as possible of tumour tissue is removed[8]. The smaller the amount of residual tumour the more effective is chemotherapy. Residual tissue less than 3 cm is optimal for treatment with chemotherapy. In epithelial ovarian cancer the principal goal of primary surgery is the complete extirpation of disease combined with a total hysterectomy, bilateral salpingoophorectomy and omentectomy.

Presence of residual disease after primary surgery is an important adverse prognostic factor and there is a significant association between its amount and outcome. Factors affecting the prognosis include.

- Solid mass.
- Mass greater than 8 cm in diameter.
- Mltilocular cyst.
- Bilateral ovarian masses.
- Patient over 30 years' age.
- Rising CA125 level.

All of our patients had tumour size bigger than 22 weeks gestation at the time of admission. Diagnosis was confirmed by ultrasonography but confirmation of malignancy was on laparotomy and histopathology received later.

The insidious nature of the symptoms accounts for the late presentation of women with advanced disease [7]. As yet specificity can be improved by combining the date. [9, 10]

Data exist which demonstrates some tumour marker elevation two years prior to the onset of clinical symptoms [11]. Ultrasound characteristics suggestive of ovarian cancer include semi-cystic, semi –solid masses, thick septation. Surface papillation, bilateral masses, associated ascities and matted loops of bowel indicate advance disease.

Transvaginal ultrasonography is being increasingly utilized. The main advantages of this technique include the fact that higher frequencies combined with the proximity of the transducer to the pelvic structures produce better image resolution and quality. Unlike abdominal ultrasound a full bladder is not required [13, 14].

Recently blood flow Doppler colured blood flow imaging are being used. Parameters examined commonly are the pulsality index[15].

Over 200 potential tumour associated markers have reported in literature. CA – 125 is the most intensively studies antigen. A risk of malignancy index incorporating CA-125 measurements, morphologically scoring with ultrasound and menopausal status may be used for the accurate preoperative diagnosis of ovarian cancer[11].

Serial CA-125 measurement after surgical debulking and chemotherapy is useful as a prognostic indicator. Other markers that have shown promise include macrophage colony stimulating factor, inhibiting and cancer associated serum antigen [16]. The scoring method based on menopausal status, ultrasonographic examination and serum concentration of CA125 (Risk of Malignancy Index-RMI) have given much better result than single determination[5].

Because of the decreased incidence of ovarian carcinoma and the relatively high cost of screening procedure, the benefit of screening of ovarian carcinoma is still questionable [17]. Bell *et al.*, modalities to identify early stage curable disease has generally been disappointing. [18]

## REFERENCES


1. Pell KR Benign and Malignant Tumour of the ovary. Dewhurt's textbook of Obstetrics and Gynaecology for Postgraduate (5th Edition) Chapter 49, pp. 759-779.
2. Vicki V, Baker MD, Premalignant and malignant disorders of the ovaries and oviducts. Current Obstetric & Gynecologic Diagnosis and treatment (Eight Edition) Prentice-Hall International. Inc., 1994, pp. 954-966.
3. Beral 1978. The Epidemiology of ovarian cancer, in ovarian cancer – the way ahead. RCOG, London.
4. Gordon V, Navaynshi, Grant P, Cumming and David E., Parkin. The performance of screening test for ovarian cancer of systemic review ((correspondence). Br. J Obs and Gynecology, 1999, Vol 106; (10) 1107-1108.
5. Morgante G, Lamrca A, Delco L. Comparison of the malignancy risk indces based serum CA125, ultrasound score and menopausal status in the diagnosis of ovarian amasses. Br J of Obs and Gynae Vol. 106 June 1999 pp, 524-527.
6. Fathalla M.F. Incessant ovulation a factor in ovarian neoplasia. Lancet 1971: ii, 163.
7. Kottmeir h (1982). Annual Report on the results of treatment of gynecological cancer. No. 18, FICO, Stockholm, Sweden.
8. Griffiths C.T. Surgical resection of tumour bulk in the primary treatment of ovarian carcinoma. Nati Cancer inst Monogr. 1975: 42, 101-104.
9. Jacos l.J, Stabile l, Bridges J, Multimodal approach to screening for ovarian cancer. Lancet 1988: 1 268-271.
10. Jacobs I J., Stabile l, & Bast R.C. The CA125 tumour-associated antigen a review of the literature. Hum Reprod 1989; 1:1-12.
11. Jacos l.J. & Oram D.H. (1990). Potential screening tests for ovarian cancer. In Ovarian Cancer: Biological and Therapeutic Challenges (F. Sharpe, W.P, Nason & R.E. Leak, eds), Chapman and Hall, London, 197-205.
12. Herman U, Locher G, & Goldhiresch A. 1987. Sonographic pattern of ovarian tumours: predication of malignancy. Obstet Gynecol 69, 777-781.
13. Bourne. Screening for early familial ovarian cancer with transvaginal ultrasonography and color flow imaging. Br. Med J 1993: 306, 1025-1029.
14. Bourne. Ca ovarian masses be characterized using ultrasound. Gynecol Oncol 1993; 51-4-6.
15. Kurjak A., Zalud l & Alfirecic Z., Evacuation of adnexal masses with transvaginal colour ultrasound. J. Ultrasounds Med 1991: 10, 295-297.
16. Suzuki M. Macrophage colony-stimulating factor as a tuour marker for epithelial ovarian cancer. Obstet Gynecol 1993; 946-50.
17. Saski H, Moda Ohmuru, Akiama M, Cliu et al. Ovarian cyst detected by transvaginal sonography in the Tokyo metropolitan area. Br. J of Gynea ad Obstetrics, May 1999. Vol. 106 415-420.