Original Research Article

A study of management of ovarian tumours at tertiary health care centre

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Abstract

Background: Ovarian cancer is the sixth most common cancer in female and second most common gynaecological malignancy with the highest mortality rate of all gynaecological malignancy and the overall 5-year survival rate is 46%. An important cause for this high mortality is the extensive disease at the time of diagnosis which makes it important to characterize these lesions early in its course. **Aim and objective:** To study the management of patients with ovarian tumours at a tertiary health care centre **Methodology:** This study was carried out over a period of 2 years from 2013 to 2015 and includes 60 patients with ovarian tumour. Data was collected with pretested questionnaire. Data included sociodemographic data, clinical history and clinical examination. Management was done as per type of ovarian tumours. The complications of ovarian tumour were observed. Data analysed with appropriate statistical tests. **Results:** The incidence of ovarian tumour was 5.92%. In the study 65% were benign tumours, whereas 35% were malignant. Most common mode of management of ovarian tumour was cystectomy (44.82%).
Keyword: ovarian tumours

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INTRODUCTION

Ovary is the vital organ concerned with the reproductive capacity of the individual. Ovarian tumours are common form of neoplasms in women accounting for about 30% of genital tract tumours. Ovarian tumour is the 6th most common cancer in humans and most frequent cause of death in gynaecological cancer. About 70% tumours occur in reproductive age group. Ovarian cancer is 2nd most common malignancy of female genital tract after Carcinoma of cervix. It accounts for 10-15% of total genital malignancies in India.[1] It kills more women every year than cancer of all genital sites combine.[2] High mortality rate due to ovarian cancer can be attributed to advanced stage at the time of presentation and failure of complete resection of tumour at the time of surgery. Hence, it is crucial to have a fair idea regarding the nature of tumour, benign or malignant at the therapeutic stage so that the primary surgery can be optimally planned and undertaken. The problem of pre-operative diagnosis of the ovarian tumour has not yet been completely solved.[3] Specially in resources limited settings in India. This results inevitably in some patients having suboptimal oncoreductive surgeries and other being under staged and at risk of under treatment.[4] Due to often asymptomatic nature of the early stage of the disease, many cases of the ovarian tumours present in advanced stage for which 5 year survival rate remains low. Up to 70% of the cases are detected in advanced stages in which mortality rate reaches 70% in 2 years and 90% in 5 years. This has encouraged research into ovarian tumour research methods. Ovarian tumours commonly present as adnexal mass. An adnexal mass refers to any mass occupying a region of the uterine appendages (adnexa). The accurate diagnosis of ovarian tumours is challenging for gynaecologist because of

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atypical behaviour. Preoperative diagnostic procedure that are able to distinguish whether an ovarian tumour is benign or malignant could be useful in planning and optimizing treatment. Pre-operative assessment of ovarian mass is generally done by bimanual pelvic examination (for its size, shape, consistency, mobility and tenderness), ultrasonography (transabdominal or transvaginal with or without Doppler), computerised tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET) and tumour markers (CA-125, CA-15-3, CA-19-9). Among these, CT scan, MRI and PET scan are costly investigations, the availability and affordability cannot be ensured specially in resource limited settings like developing countries. These individual parameters have varying sensitivity and specificity. Any patient with ovarian mass with more than 10 cms in size requires surgical exploration. Ovarian cyst of lesser size in the pre-menopausal age group can be followed up clinically for few months, for expected resolution of functional cysts. Postmenopausal women with complex ovarian mass more than 6 cms requires surgical exploration since there is increased risk of malignancy. Due to high prevalence and case fatality ratio of ovarian tumour even in good hospital set up, early diagnosis and treatment becomes very necessary. The present study will be undertaken to review common clinical, histological presentation and management of patients of ovarian tumours.

Aim and objective: To study the management of patients with ovarian tumours at a tertiary health care centre

MATERIAL AND METHODS

Present study was a prospective observational study carried out at a tertiary health care centre. Study was carried out during 2013 to 2015. All the patients admitted in the obstetrics and gynaecology department with ovarian tumour were studied.

Inclusion Criteria: 1.All patients with solid ovarian mass detected clinically and ultrasound examination 2.All patients with cystic ovarian lesions more than 6 cms.

Exclusion criteria: 1.Ovarian cyst less than 6 cms with clear cysts in reproductive age group.

Study was approved by ethical committee of the institute. A valid written consent was taken from patients after explaining study to them. Data was collected with pretested questionnaire. Data included sociodemographic data, clinical history. A through clinical examination was done. All patients underwent routine investigations for surgery. Histopathological reports and ultrasonographic findings were noted. The tumour marker levels of suspicious tumours were tested. The intra- operative findings were noted. Management was done as per type of ovarian tumours. The gross and histopathological study of the specimen was done. The co-relation between preoperative, intra- operative and post operative findings was done. The complications of ovarian tumour were observed. Data was analysed with appropriate statistical tests.

RESULTS

There were total 1012 gynaecology admissions in institute during study period, out of which 60 were ovarian tumours. So the incidence was 5.92%. In present study, most of the patients (33.34%) with ovarian tumour were in the age group 51 year old and above, followed by age group of 41-50 years (23.33%). Least belonged to the age group of 31-40 years (18.33%). (table 2) In present study, most common clinical presentation was pain in abdomen (93.33%), followed by abdominal mass (83.33%). Most of the ovarian tumour patients presented with more than one symptoms. Pressure symptoms included retention of urine, increased frequency of micturation, gastrointestional symptoms like constipation. In present study, maximum cases were having unilateral ovarian tumours (63.33%). In present study, among the 60 patients with ovarian tumours, 39 cases (65%) were benign tumours, whereas 21 cases (35%) were malignant. In present study on ultrasonographic examination maximum findings were suggestive of cystic + solid consistency (35%), followed by cystic consistency (33.33%). Least common were liver metastasis (3.33%).In present study, 38.33% of the patients had tumour marker CA-125 positive whereas the remaining 61.67% had CA-125 tumour marker as negative. In our study, among the study group of 60 patients, majority of (40%) were found to have serous cyst adenoma followed by mucinous cyst adenoma (18.33%). (table 3) In present study, most common mode of management of ovarian tumour was cystectomy (44.82%) followed by total abdominal hysterectomy with bilateral salphingo oopherectomy seen in 29.31% cases. Exploratory laparatomy with biopsy was least carried out (3.44%). (table 4) In present study, 88.33% of patients with ovarian tumour had no complication. 1 patient (1.66%) had recurrence, 2 patients (3.44%) had torsion of tumour.2 patients (3.44%) having ovarian tumour died due advanced ovarian neoplasm and disseminated carcinomatosis (table 5).

Table 1: Incidence of ovarian tumours

Total no patients	**1012**
Total no of patients with Ovarian tumours	60

Incidence of ovarian tumours	5.92%

Table2: Distribution of ovarian tumour patients according to age group

Age in Years	Cases	Percentage
30	15	25
31-40	11	18.33
41-50	14	23.33
≥ 51	20	33.34
Total	**60**	**100**

Table 3: Distribution of ovarian tumour patients according to histopathologictal type

Type of Tumour	Cases	Percentage
Serous Cyst Adenoma	24	40
Mucinous Cyst Adenoma	11	18.33
Dermoid Cyst	04	06.66
Serous Cyst Adenocarcinoma	06	10.00
Mucinous Cyst Adenocarcinoma	09	15.00
Papillary Serous Cyst Adenocarcinoma	02	03.33
Papillary Mucinous Cyst Adenocarcinoma	03	05.33
Krukenberg Tumour	01	01.66
Total	**60**	**100**

Table 4: Distribution of ovarian tumour patients according to management surgery

Operation	Cases	Percentage
Cystectomy	26	44.82
TAHBSO	17	29.31
SL+ TAHBSO	15	22.41
EL+ Biopsy	02	3.44
Total	**58**	**100**

Table 5: Distribution of ovarian tumour patients according to complications

Complication	Cases	Percentage
Torsion of Tumour	02	03.44
Recurrence	01	01.66
Death	02	03.44
No Complication	53	88.33
Total	**60**	**100**

DISCUSSION

In our study, out of 1012 patents 60 were ovarian tumours So the incidence was 5.92%. Similar findings were seen in M Yogambal *et al.* (2013)[5] where 5.36% was incidence of ovarian tumours. In a study by Dr. Vaddatti Tejaswini *et al.* [6] incidence was higher about 7.02% and in a study by Tarek Ramadan Abbas[7] incidence was 2.31%. Different incidence was observed in different studies because of different population, different study standards and different methodology used by the investigator. In present study, 33.66% of ovarian tumour were found in age group >51 years. Whereas in the study by R Jha *et al.*[8] ovarian tumour were seen maximum in age group <30 years (32.59%) and study by Vaddatti Tejeswini *et al.*,[6] ovarian tumour were seen maximum in age group of 31-40 years (29.49%). In present study, 63.33% of the patient had unilateral ovarian tumours, as similar to that of study of RK Mishra[9] (96.31%) and R Jha *et al.*[8] (87.57%). Both the studies were comparable to the present study. In present study, benign tumours were more commonly seen in 65% cases. In a study by Kanthikar *et al.* (2014)[10] benign tumours were found in 78.57% and malignant tumours were found in 20% patients.Iin a study by Pilli *et al.* (2002)[11] benjgn tumours wwere found in 75.2% patients. similar results were observed in previous studies.[12,13] In present study, most common clinical presentation was pain in abdomen seen in 93.33% of cases. It is comparable to studies by Sumaira *et al.*[14] (70.59%), Tarek Ramadan Abbas *et al.*[7] (66.66%), Kanthikar *et al.*[10] (29.33%). Very few cases develop pressure symptoms like retention of urine, frequency of micturation, constipation in all studies. In present study, tumour marker CA-125 was positive in all of the malignant ovarian tumours. It was comparable to study by Habib KA.[15] In present study, on

histopathalogical examination most common ovarian tumour was serous cyst adenoma seen in 40% of cases. It was comparable to the study by Kanthikar *et al.*.[10] In present study, most common mode of management of ovarian tumour was cystectomy (44.82%) followed by total abdominal hysterectomy with bilateral salphingo oopherectomy seen in 29.31% cases. Exploratory laparatomy with biopsy was least carried out (3.44%). In our study, 88.33% of patients with ovarian tumour had no complication. 1 patient (1.66%) had recurrence, 2 patients (3.44%) had torsion of tumour.2 patients (3.44%) having ovarian tumour died due advanced ovarian neoplasm and disseminated carcinomatosis . Conservative surgery is feasible only in young patients with borderline tumours, or endometrioid, mucinous, or serous Stage IA, grade I ovarian cancer.[16-19]

CONCLUSION

Most common mode of management of ovarian tumour was cystectomy (44.82%) followed by total abdominal hysterectomy with bilateral salphingo oopherectomy seen in 29.31% cases.

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