Prevalence of ovarian mass lesions in tertiary care centre

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Abstract

Background: Ovarian cancer is third most common gynaecological malignancy with highest mortality[1]. Among them epithelial ovarian cancer is often called the "silent killer" because the disease is not often detected until it reaches toan advance stage. **Methods:** This observational study conducted on 62 patients from February 2012 to October 2016 in the Department of Obstetrics and Gynaecology in GMERS Medical College, Gotri Vadodara. Along with clinical details of the patients, histopathological report details were observed. Histopathological reporting was carried out at our Pathology department. **Results:** Out of total 62 patients of ovarian tumours,19.35% were non neoplastic and80.65 % were neoplastic. Among neoplastic tumours 84 % were benign, 12 % were malignant and only 4 % were borderline.41.93% of ovarian lesionwere between 40-59 years of age group. Symptoms were vague and non-specific so early diagnosis of the ovarian cancer becomes difficult. Histological pattern of distribution of ovarian tumour shows that most of ovarian tumour were surface epithelial tumour. Age wise distribution of study population showed that most of the surface epithelial tumour were more common in 3rd to 5th decade while most of germ cell tumour were more frequent in 2nd and 3rd decade. **Conclusions:** As a lack of any effective screening test early detection of ovarian tumour becomes difficult. for better patient survival and over all prognosis, there is need to increase awareness of population so timely approach toclinician can help detecting disease. Appropriate examination and investigations were must to diagnose the disease at an early stage so treatment can be started and morbidity and mortality can be reduced.
Key Word: epithelial tumour, neoplastic tumour, germ cell tumour

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INTRODUCTION

Ovarian tumour is one of the most common gynaecological tumours seen in female although there were different types of ovarian tumour but epithelial ovarian cancer is the fifth most common cause of cancer death in women.[2] More than 75% patients have retroperitoneal and intra-abdominal spread at the time of diagnosis. Up to 24% of ovarian tumours in premenopausal women were malignant and up to 60% were malignant in postmenopausal women[3,5]. Ovarian cancer usually affects older women more frequently than younger, they were not always malignant, but, the incidence of malignancy is about 15% -25% in different parts of the world.[6] Ovarian tumours may be cystic or solid in consistency. Most of the benign tumours were cystic but 80% of solid ovarian tumours weremalignant.[7,8] The relative risk for ovarian malignancy increases significantly after the age of 40 years[9,10] Common symptoms include abdominal due to which pressure symptoms like distension, pain, dyspepsia and increased frequency of urine occur. Family history of ovarian and breast cancer has strong link and considered as major risk factor for ovarian cancer.[11,13]

METHODS

This observational study conducted on 62 patients from February 2012 to October 2016 in the Department of Obstetrics and Gynaecology in GMERS Medical College,

Gotri Vadodara. Along with clinical details of the patients, histopathological report details were observed. Reporting was carried out at our Pathology department. All cases with ovarian mass lesions treated surgically were included in the study. The diagnostic evaluation was done with investigations for exclusion of malignancy with USG, tumour markers and CT wherever indicated. Details like age, history and presenting symptoms were collected. Histopathological reporting was carried out according to World Health Organization Classification of ovarian tumours.

RESULTS

Out of total 62 cases,12 were non neoplastic and 50 were neoplastic. 3.22% (2) of ovarian tumours were in age group of less than twenty. 27.41% (17) tumours were found in age group of 20-39 years. Most non neoplastic lesions were incidental findings during hysterectomy done for other reasons. Most common presentation for tumours was between 40- 59 years of age, i.e. 41.93 % (26). In age group of more than 60 years 27.41% (17) tumours were present. In 14.51% patientsfindings were incidental,11.29% patients present with nausea and vomiting,37.09% present with abdominal mass, 12.90 % patients present with urinary disturbances and 24.19 % present with weight loss.

In early disease symptoms were vague and non-specific so early diagnosis of the ovarian cancer becomes difficult. Out oftotal 62 patients of ovarian tumours, on histological examination19.35 % were non neoplastic,66.12 % were benign, 9.67 % were malignant and only 3.22 % were borderline. Histological pattern of distribution of ovarian tumour shows that most of ovarian tumour were surface epithelial tumour, among which serous tumours were 32. 29 were benign and 3 were malignant, (one serous cystadenoma was with strumaovarii). Total cases with mucinous tumours were 7, among which 3 were benign,2 were borderline and 2 were malignant. Patients with germ cell tumour were 7, among which 5 were dermoid cysts and one is strumaovarii. Struma ovarii is defined by the presence of thyroid tissue comprising more than 50% of the overall mass. It most commonly occurs as part of a teratoma, but may occasionally be encountered with serous or mucinous cystadenomas. One case is of mixed germ cell tumour having component of Dysgerminoma and embryonal carcinoma Total number of sex cord tumours were 4 and all were benign. Out of 3 serous carcinomas, one was in age group of 20-30 years, two were in age group of more than 60 years. Two were mucinous carcinomas and both were in age group of 41-60 years of age. We found only one germ cell carcinoma case in our study which was in second decade.

Table 1: Frequency of age group of study participants.

Age	Non-neoplastic	Neoplastic	TOTAL	%
< 20	2	0	2	3.22
20-39	3	14	17	27.41
40- 59	6	20	26	41.93
>60	1	16	17	27.41
Total	12	50	62	100

Table 2: Frequency of various symptoms of study participants.

Symptoms	No. of patients	%
Asymptomatic	9	14.51
Nausea and Vomiting	7	11.29
Abdominal mass	23	37.09
Increased urinary frequency	8	12.90
Weight loss	15	24.19

Table 3: Type of ovarian tumours.

	Type	No of patients	%
Non neoplastic	Follicular cyst	4	
	Haemorrhagic Cyst	4	19.35
	Tubo-ovarian abscess	4	
Neoplastic	Benign	42	
	Borderline	2	80.65
	Malignant	6	
	Total	62	100

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Table 4: Histological pattern of neoplastic ovarian tumours.

Diagnosis	Benign		Borderline		Malignant		Total	%
Surface epithelial Serous tumours	Serous Cystadenoma	28			Papillary Serous Cyst Adenocarcinoma	3	32	64
Surface epithelial Mucinous tumours	Serous cystadenoma with strumaovarii	1						
	Mucinous cystadenoma	3	Mucinous cystadenoma	2	Mucinous cyst Adenocarcinoma	2	7	14
	dermoid cyst	5						
Germ cell tumors					Embryonal cell carcinoma	1	7	14
	Teratoma with strumaovarii	1						
(Sex cord - stromal tumours-Granulosa tumours)	Fibrothecoma	1					4	8
	Fibroma	3						50
Total	42		2		6			
%	84		4		12			

Table 5: Distribution of different classes of ovarian tumours in different age groups.

Ovarian tumour	20-40 (age in years)	41-60 (age in years)	>60 (age in years)	Total
Serous carcinoma	0	1	2	3
Mucinous carcinoma	0	2	0	2
germ cell carcinoma	1	0	0	1

DISCUSSION

Ovarian lesions are commonly encountered in clinical practice.it can present in any age with any symptom. They can occur as functional cysts, benign or malignant tumours. Cystic ovarian lesions were either physiological, or pathological. Differentiating these masses is mandatory as to start definitive treatment for pathological tumours. Over all peak incidence of ovarian tumours was observed between the age group of 40-59 years i.e. 41.935 %. Study done by S. Maharjan observed peak incidence of ovarian lesions (76.67%) in the age group of 21-50.[14] In our study14.51% cases findings were incidental,11.29% patients present with nausea and vomiting,37.09% present with abdominal mass, 12.90 % patients present with urinary disturbances and 24.19 % present with weight loss. These results differ from study done by Petignat et al in which most common symptoms were abdominal pain (76%) and gastrointestinal problems (45%). Bladder and gynaecological symptoms were 25% and 7% respectively.[15] Out of total 62 patients of ovarian tumours, on histological examination 19.35 % [12] were non neoplastic and 80.65%(50)were neoplastic, which is almost similar to study conducted in Nepal by S. Maharjan, in which 13.33 % were non neoplastic and 86.87 % were neoplastic tumours.[14] Among all neoplastic tumours 84% were benign, 12% were malignant and only 4 % were borderline which is similar to study done Palak et al in which were 88% were benign, 4% borderline and 8% were malignant tumour.[16] In our study serous carcinomas were seen in 5th and 6th decades. Mucinous carcinomas were seen in 4th and 5th decades. Germ cell carcinoma is seen in second decade of life. Similar results were found in study done by Jha et al.[17]

CONCLUSION

Ovarian cancer has been emerging as one of the commonest malignancy affecting women in India. A steady increase has been observed in the incidence of ovarian cancer. Most common tumour were epithelial in origin in which serous cystadenoma was the commonest.

Malignant surface epithelial tumour were mostly seen after 5th decades during menopausal period, while malignant germ cell tumour were observed in a younger age group. To reduce morbidity and mortality caused by ovarian tumours, early detection of disease is utmost important. Assymptoms were usually nonspecific and effective screening test is yet to be developed. Efforts should be made to detect the disease at early stage by combined approach with the help of patient's age, personal and family history, specific investigations like tumour markers, ultrasound CT scan and MRI. Population education and awareness should be emphasised. Every patient presenting with gynaecological problem should undergo abdominal and bimanual examination.in low resource settings like India, an epidemiological study should be done to find effective screening programs to screen ovarian cancer risk age group patients with vague symptoms.

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