Original Article

Clinical Presentation of Ovarian Tumour

Nawrozy MS[1], Sultana F[2], Kamal AHM[3], Begum A[4], Tasmin SF[5], Nahaer MK[6]

Abstract

Background: Clinical course of ovarian tumours are amazingly quite and the malignant ones are often inoperable by the time they are diagnosed. Aim of this study was to look into any probable way of early diagnosis of ovarian tumour.

Methods: This study was carried out at the Department of Obstetrics & Gynaecology of Rangpur Medical College Hospital, Rangpur from July 2012 to June 2014. In this study, total 31 cases were included. The findings were described as percentage of total. In addition, χ^2 test & Pearson's correlation coefficient 'r' test were also used.

Results: Age range of all the cases was between 16 and 65 years. Among the 31 cases, benign cases were 77.41% and malignant were 22.59%. The highest incidence of benign case was observed around 35 years of age and for the malignant cases was above 60 years. Patients commonly presented with abdominal lump (83.87%), abdominal pain (83.87%) and dyspepsia (74.19%). Other presentations were weight loss (22.58%), rapid enlargement of growth (16.13%), sense of heaviness of abdomen (9.67%) and abdominal enlargement (3.23%). Histologically serous cystadenoma was 38.71%, dermoid cyst 22.58%, mucinous cystadenoma 16.13%, poorly differentiated adenocarcinoma 12.90%, serous cyst adenocarcinoma 6.45% and immature teratoma was 3.23%.

Conclusion: This sample is too small to draw any conclusion. Yet, as it was found, the incidence of benign tumours rises with increasing age up to 40 years and thereafter it declines. Whereas, the incidence of malignant tumours are very low before 40 years and thereafter it increases gradually. Also, public awareness may be developed regarding a female, specifically above 40 years of age, if complaints of abdominal lump, abdominal pain or dyspepsia should be evaluated properly; this may help in early diagnosis of many malignant ovarian tumours.

Key Words: Ovarian tumour, Peak age incidence, Common presenting features.

Introduction

Ovarian malignancy is a leading cause of death from gynaecological cancers. Globally more than 200,000 women are estimated to develop ovarian cancer every year and about 100,000 women die of the disease[1]. The incidence of ovarian cancer is 7% out of total female cancers[2] and life time risk of ovarian cancer is about 1.7% in general population[3].

But the problem is that, excluding those which have endocrine function, clinical course of ovarian

[1] Assistant Registrar (Obstetrics & Gynaecology), 250 Beded Mohammad Ali Hospital, Bogra.
[2] Head of the Department of Obstetrics & Gynaecology, Rangpur Medical College & Hospital, Rangpur.
[3] Assistant Professor & Head of the Dept. of Biochemistry, Kushtia Medical College, Kushtia.
[4] Department of Obstetrics & Gynaecology, Rangpur Medical College & Hospital, Rangpur.
[5] Associate Professor, Department of Obstetrics & Gynaecology, Rangpur Medical College & Hospital, Rangpur.
[6] Associate Professor, Department of Obstetrics & Gynaecology, Rangpur Medical College & Hospital, Rangpur.

tumours are amazingly quite and rarely give rise to symptoms other than those induced mechanically by the size of the mass. This is why they are really dangerous and the malignant ones are often inoperable by the time they are diagnosed.[4]

More over, the stage of disease is a great factor regarding prognosis. A five years survival rate for epithelial ovarian cancer to be of 83-90% for Stage I, 65-71% for Stage II, 33-47% for Stage III & 19% for Stage IV and for epithelial ovarian neoplasm of low malignancy potential, it is about 95%; side by side, better 5 years survivals rate is observed in germ cell tumours than in epithelial ovarian cancer; 5 years survivals rate with dysgerminoma being 95%, immature teratoma 70 to 80%, endodermal sinus tumour 60 to 70%.[3]

So, effort should be made to detect ovarian cancer at an early stage by educating people. This study was undertaken to observe the age of presentation of ovarian tumours with their common presenting features and thereby, to observe any probable way of early diagnosis.

Material and Methods

This was a cross sectional descriptive study, carried out at the Department of Obstetrics & Gynaecology of Rangpur Medical College Hospital, Rangpur. Sample of this study was collected from July 2012 to June 2014.

All patients admitted in the Department of Obstetrics & Gynaecology of Rangpur Medical College Hospital, Rangpur, having ovarian tumour diagnosed by history, clinical examination and ultrasonography during study period were included in this study, of course with due consent from the patients and the guardians. The total number of cases (N) included in this study was 31. Sample collection procedure was purposive sampling technique. Previously diagnosed and treated ovarian tumours (recurrent case) were excluded.

The observed presenting features were described as 'Percentage involved'. In addition, $\chi 2$ test and Pearson's correlation coefficient 'r' test were used and $P<0.05$ was considered as level of significance.

Results:

A total of 31 cases were included in this study. Age range was between 16 and 65 years. Among them, benign cases were 24 (77.41%) and malignant were 7 (22.59%) in number (Fig-1).
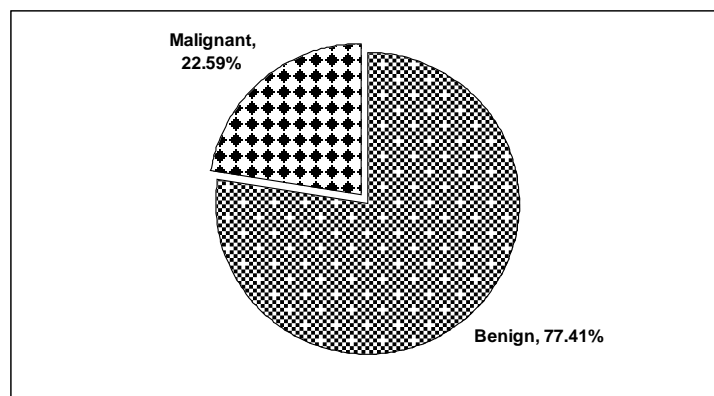
Figure 1: Shows the proportion of benign and malignant cases of this study.

Among the benign cases, 6.45% were in <20 years of age group, 16.13% were in 20 to <30 years age, 35.48% in 30 to <40 years, 16.13% in 40 to <50 years, 3.22% in 50 to <60 years age & 0% in ≥ 60 years age group. And, among the malignant cases, 0% was in <20 years age group, 3.22% were in 20 to <30 years age group, 0% in 30 to <40 years age, 3.22% in 40 to <50 years, 6.45% in 50 to <60 years & 9.67% in ≥ 60 years age group. Benign tumours show a significant positive correlation up to 40 years of age

(P<0.02) and thereafter it shows a significant negative correlation (P<0.05); and, malignant tumours show a positive correlation throughout all the age groups (P<0.02). (Fig-2)
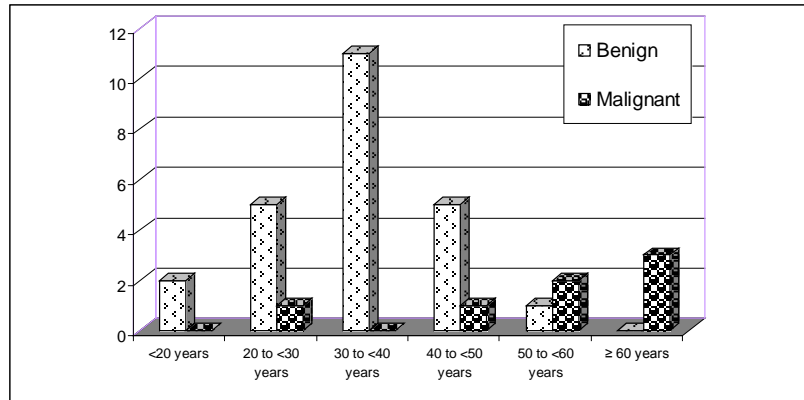
Figure 2: Shows the findings of benign & malignant ovarian tumours in different age groups. Total cases (N)=31, Benign (N_1)=24 & Malignant (N_2)=7. For benign cases, up to age <40 years, 'r'= 0.9819 ('P'<0.02), after 40 years, 'r'= –0.9569, ('P'<0.05). For malignant cases, for all age groups, 'r'= 0.8687, ('P'<0.02.)

Patients commonly presented with abdominal lump, abdominal pain and dyspepsia. Other presentations were weight loss, rapid enlargement of growth, sense of heaviness of abdomen and abdominal enlargement. 'χ^2' test demonstrated significant differences for rapid enlargement of growth (P<0.01) & weight loss (P<0.05). None presents with menstrual abnormality. (Table-I)

Table I: Clinical presentations of benign (N_1=24), malignant (N_2=7) & all cases (N=N_1+N_2=31).

Clinical Presentations	Malignant cases (% out of 7)	Benign cases (% out of 24)	Total cases (% out of 31)	'P' value for 'χ^2'	Odd's ratio
Abdominal lump	6 (85.71%)	20 (83.33%)	26 (83.87%)	>0.50	1.2
Abdominal pain	6 (83.71%)	20 (83.33%)	26 (83.87%)	>0.50	1.2
Dyspepsia	7 (100%)	16 (66.66%)	23 (74.19%)	>0.10	Œ
Weight loss	4 (57.14%)	3 (12.5%)	7 (22.58%)	<0.05	9.3
Rapid enlarge-ment of growth	4 (57.14%)	1 (4.16%)	5 (16.13%)	<0.01	30.6
Sense of heaviness of abdomen	0 (0%)	3 (12.5%)	3 (9.67%)	>0.50	--
Abdominal enlargement	0 (0%)	1 (4.16%)	1 (3.23%)	--	--
Menstrual abnormality	0 (0%)	0 (0%)	0 (0%)	--	--

'χ^2' test was used to determine the level of significance. The differences were significant for rapid enlargement of growth (P<0.01) & weight loss (P<0.05).

Histologically, serous cystadenoma was 38.71%, dermoid cyst 22.58%, mucinous cystadenoma 16.13%, poorly differentiated adenocarcinoma 12.90%, serous cyst adenocarcinoma 6.45% and immature teratoma was 3.23%.

Discussion:

In this study (figure-1), total of 31 ovarian tumour cases were included. Among these 31 cases, 24 (77.41%) were benign and 7 (22.59%) were malignant. Other studies also found similar results – 800 (75%) cases benign, 266 (25%) cases malignant[5]; and, 80 (72%) cases benign, 30 (28%) cases malignant[6].

Here, it was found that (figure-2) the incidence of benign tumours rises with increasing age up to 40 years showing a positive correlation with age; thereafter its incidence declines with a negative correlation – representing the maximum incidence around 40 years. The incidence of malignant tumour is very low below 40 years and thereafter it increased with a peak incidence being above 60 years, showing a positive correlation. Of course, a small sample like this is very poor to draw a conclusion like this. It was found that the incidence of benign tumour is more in 20-40 years of age and for malignant tumour it is above 50 years of age[7]. Another study demonstrated the maximum incidence of benign tumour around 40 years and maximum incidence of malignant tumour above 50 years[8].

In this study (table-I), abdominal lump (83.87%) and abdominal pain (83.87%) were the most common presentations. Pain is a common association with ovarian tumours which may be benign or malignant; Junejo et al. found pain in 87% of ovarian tumour cases[9] & Jaffar et al. found pain in 90% of ovarian tumour cases[10]. Torsion, intracystic haemorrhage, adhesion, central necrosis are common causes of pain[4]. Dyspepsia (74.19%) was the next common presenting feature in this study (table-IV); Jaffar et al. found loss of appetite in 21% cases, nausea & vomiting in 49% cases. In this study, 22.58% of total cases present with loss of weight which is significantly higher in malignant group (57.1%) than in benign group (12.5%) (P<0.05). Weight loss in benign cases (12.5%) may be due to pre-existing malnutrition. Jaffar et al. found 100% association of weight loss with malignant ovarian tumour[10].

As it was found that common presentations of malignant ovarian tumour are lump (83.87%), abdominal pain (83.87%) and dyspepsia (74.19%) in elderly cases, so, in conclusion, we can say that, public awareness should be developed – when a female, specifically >40 years of age, if complaints of lower abdominal pain, dyspepsia or a sense of lower abdominal lump should undergo immediate clinical assessment and investigation, specifically ultrasonography. This will make early diagnosis of many malignant ovarian tumours and thereby will improve the outcome.

References

1. Green AE. Ovarian cancer. Medscape reference: Drugs, Diseases & Procedures; Updated: Sept 26, 2012. http:// emedicine. medscape.com/ article/ 255771- overview.

2. Dhillon PK, Yeole BB, Dikshit R, Kurkure AP & Bray F. Trends in breast, ovarian and cervical cancer incidence in Mumbai, India over a 30-year period, 1976–2005: an age–period–cohort analysis. Epidemiology In: *British Journal of Cancer* (2011) 105, 723–730. doi:10.1038 /bjc.2011.301 www.bjcancer.com Published online 9 August, 2011.

3. Levy G & Purcell K. Premalignant & Malignant Disorders of Ovaries & Oviducts. In: Current Diagnosis & Treatment Obstetrics & Gynaecology, 11th edition, 2013; Chapter 50: page-848. DeCherney AH et al. edts. McGraw-Hill Companies, Inc.

4. Kumar P & Malhotra N. Tumours of Overy. In: Jeffcoate's Principles of Gynaecology, 7th edition, 2008; Chapter-33: Page-524. Jaypee Brothers Medical Publishers (P) Ltd. India. © 2008, Arnold.

5. Timmerman D, Testa AC, Bourne T, Farrazzi E, Ameye L, Konstantinovic ML, Calster BV, Collins WP, Vergote I, Uffel SB & Valentin L. Logistic Regression Model Distinguish Between the Benign

and Malignant Adnexal Mass Before Surgery: A Multicenter Study by the International Ovarian Tumour Analysis Group. doi: 10.1200/JCO.2005.01.7632. JCO December 1, 2005; 23 (34): 8794-8801. © 2005 by American Society of Clinical Oncology.

6.   Wasim T, Majrroh A & Siddiq S. Comparison of clinical presentation of Benign and Malignant Ovarian Tumours. J Pak Med Assoc, 2009; 59:18-21.

7.   Bukhari U, Menon Q & Menon H. Frequency and Pattern of Ovarian Tumours. Pak J Med Sci 2011; 27 (4): 884-886. www.pjms.com.pk

8.   Kayastha S. Study of ovarian tumours in Nepal Medical College Teaching Hospital. Nepal Med Coll J 2009; 11(3): 200-202.

9.   Junejo N, Shaikh F, Mumtaz F. Clinical presentation and treatment outcome of ovarian tumour at gynaecology ward.   JLUMHS 2010; 09(1): 30-32.

10. Jaffar Y, Ehsan N & Ambreen. Clinical presentation of ovarian tumour. Journal of Surgery Pakistan (International) 2013; 18(2): 82-85.

All corresponds to
Dr. Mst. Shateen Nawrozy
Assistant Registrar
(Obstetrics & Gynaecology),
250 Beded Mohammad Ali Hospital, Bogra.