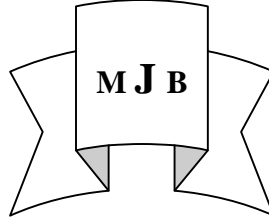


Incidence of Ovarian Tumor in Last the Five Years in Al-Najaf City

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Abstract

It is a retrospective and prospective study for ovarian neoplasm within five years in Al-Najaf city done in Al-Zahraa Teaching Hospital . The total number were 344 patients , 291 cases were benign ovarian tumors and 53 cases were malignant ovarian tumors analyzed according to their age groups and histopathological types of tumor .Young age groups were the most affected group with ovarian neoplasm in this study especially the benign type. Six histopathological types of benign and Six histopathological types of malignant were recorded; mature teratoma was more frequent for benign while serouscystadenocarcinoma was for malignant .

الخلاصة

اجريت دراسة احصائية لخمس سنوات ماضية لحالات اورام المبيض في مدينة النجف بلغ مجموع الحالات المسجلة 344 منها 291 حالة اورام حميدة و 53 حالة اورام خبيثة ،تم تحليل الحالات على اساس المجاميع العمرية والانواع النسيجية للاورام . سجلت الدراسة ستة انواع من الاورام الحميدة وستة انواع من الاورام الخبيثة . اظهرت الدراسة ان الاعمار الشابة هي الاكثر اصابة بهذه الاورام خاصة الحميدة منها . اظهر النوع النسيجي (Mature teratoma) الاكثر تكراراً بين الاورام الحميدة ، بينما النوع النسيجي (Serous cystadenocarcinoma) الاكثر تكراراً بين الاورام الخبيثة.

Introduction

Ovarian neoplasm is the most common tumors among women [1], fortunately 90% are benign. Malignant ovarian tumor is the 4th commonest malignant tumor in women and causes approximately 4000deaths each year in the UK [2]. Main risk factors are increasing age, +ve family history, increase age of reproduction , high socio-economic classes, nulliparity [3]. Ovarian tumors generally classified into 3 primary classes , epithelial tumors 90%, germ cell tumors 3% and sex cord / stromal tumors 6% depending on the type of

the ovarian tissue were the neoplasm develops[4,5].

Diagnosis of ovarian tumor depends on signs and symptoms, abdominal and vaginal ultrasound,Doppler study of tumor vasculature[6], biochemical study (tumor markers) which are proteins associated with malignant tumors like CA125, B-hCG, α -fetoprotien [7,8], however the definitive diagnosis and staging done by surgery and histopathology .

Treatment of benign ovarian tumors depends on age , presentation and fertility, while treatment of malignant tumors depends on type of

tumor, stage, age and fertility [9],treatment includes surgery, chemotherapy , radiotherapy and hormonal [10,11] .

Prognosis of malignant tumor depends on stage of tumor , grade, and size of residual tumor after surgery, there are 4stages of ovarian tumors according to tumor spread and 3 grades according to cell differentiation, unfortunately for most affected women the cancer has already spread beyond the ovaries by the time they present to specialist, this advanced stage means that the treatments are much less likely to be curative and approximately 30%survive 5years despite the widely introduction of new chemotherapy agents such as taxanes and increased interest in the screening for early stages[2,12] . Screening modalities are annual CA125 and transvaginal ultrasound [13].

Aim of study

Studying the prevalence of ovarian tumors in the last 5 years in Al-Najaf city, associaed with age and histopathological classification .

Materials and Methods

This is a retrospective and prospective study carried out at Al-

Zahraa Teaching Hospital in Al-Najaf city. In this study a number of patients with benign and malignant ovarian tumors in the last 5 years (2000, 2001, 2002, 2003, 2004) had been collected, the collected cases were from Al-Zahraa and Al-Sader Teaching Hospitals ,and Al-Forat Center of Malignancy Research, and private histopathological laboratories, all cases undergone surgical resection of tumors and sent for histopathological study. The collected data had been analysed, the tumors divided as benign and malignant types and found their incidence in each studied year, also study the relation of each type with patient age, then classified each tumor according to histopathological results of them and found their relation with age .

Student t-test was used to evaluate p-value significance between benign and malignant ovarian tumors.

P-value of < 0.05 used as significant .

Results

The total number of the collected cases was 344, benign ovarian tumors were 291 and malignant were 53 patients in these last 5 years

Table 1 Mean age , Standard Error and P-Value

Ovarian tumors (n=344)	mean±SE	P value
Benign tumors (n=291)	32.3058±0.6178	0.05
Malignant tumors (n=53)	40.0943±2.2580	

The mean age of benign tumors was 32.3 and of malignant was 40 years, which is statistically

significant ($p < 0.05$) . as shown in Table 1.

Table 2 Number and incidence of ovarian neoplasm (Benign-malignant) per year

Year	Benign Tumors		Malignant Tumors	
	N	%	N	%
2000	21	7.216	9	16.981
2001	59	20.27	9	16.981
2002	61	20.96	17	32.075 ↑
2003	74	25.42	10	18.867
2004	76	26.12 ↑	8	15.096
Total	291	100%	53	100%

Table 2 shows incidence of ovarian tumors (benign and malignant) in each year (2000-2004) . This table shows that the higher incidence for benign tumors was in year 2004 , and for malignant tumors was in year 2002.

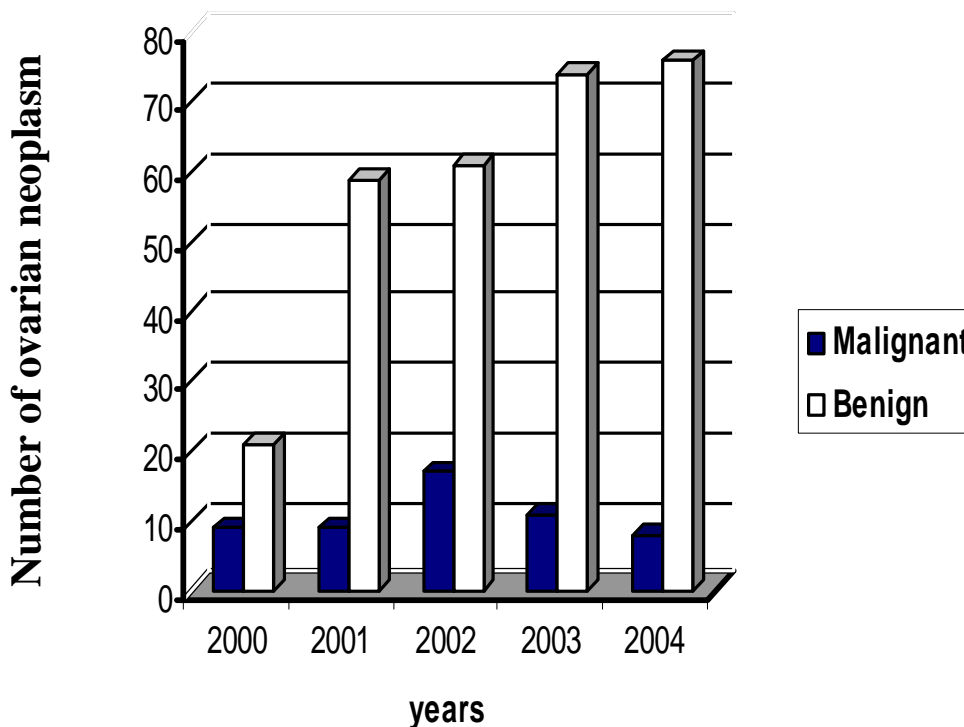


Figure 1 Number of ovarian neoplasm (Benign-malignant)

Table 3 Ovarian neoplasm to age frequency distribution

Age group	Malignant tumor		Benign tumor	
	N	%	N	%
10-19	5	9.4	17	5.9
20-29	8	15.	106	36.5
30-39	16	30.	106	36.5
40-49	6	11.	36	12.5
50-59	10	18.	17	5.50
60-69	5	9.4	9	3.12
70-79	3	5.7	0	0
Total	53	100	291	100

Table 3 shows the incidence of ovarian tumors (benign and malignant) in relation to different age groups. The higher incidence for benign tumors was 36.15% in the age

group (20-29) and (30-39) years, while higher incidence for malignant tumors was 30.18% in the age group (30-39) years.

Table 4 Histological types of benign tumor distribution by age group

Age group	Benign histological types (no.)					
	Mut.t	Ser.c	Muc.c	The.	Fib.	Bre.
10-19	7	5	5	-	-	-
20-29	40	45	18	1	1	1
30-39	47	41	17	1	-	-
40-49	16	12	5	3	-	-
50-59	3	6	6	2	-	-
60-69	3	3	2	-	-	-
70-79	-	-	-	-	-	-
Total no.	116	112	7	7	1	1
Percentage	39.9	38.057	2.5	2.5	7.54	0.45

Table 4 shows the histopathological types of benign tumors by age group distribution .

Six histological types were recorded (mature teratoma, Serouscystadenoma. mucinouscy-

stadenoma, thecoma, fibroma, bernner). The most frequent one was mature teratoma (39.9%) and was more frequent in age group (30-39) years.

Table 5 Histological types of malignant tumor distribution by age group.

Age group	malignant histological types (no.)					
	Ser.ca	Muc.ca	Dys.	Gra.ca	End	Imm.t
10-19	-	-	2	-	1	1
20-29	2	3	4	-	-	-
30-39	4	6	1	3	1	-
40-49	3	2	2	-	-	
50-59	6	-	-	2	1	^
60-69	5	-	-	-	-	
70-79	-	2	-	-	1	
Total no.	20	13	9	5	4	2
Percentage	37.81	24.53	16.98	09.43	07.54	2.76

Table 5 shows the histopathological types of malignant tumors by age group distribution . Six histological types were recorded (serouscystadenocarcinoma , mucin-ouscystadenocarcinoma , endometr-oid, granulosa cell tumor, dysgerminoma, immature teratoma) , serouscystadenocarcinoma was more frequent tumor (37.8%) and was more frequent in age group (50-59) years .

Discussion

Ovarian cancers are potentially life-threatening malignancies that develop in one or both ovaries. Ovarian tumors are not only the most common of the gynecological tumor but are (for malignant) one the most lethal which

is 4th or 5th most common cause of death from all cancer among women and the leading cause of death from gynecological malignancies , having over all 5 years survival only 30% in UK . [5,14]

Mean age of benign and malignant cases in this study was lower than that reported in study done by Southwest Cancer Intelligence Service (2000) [7], which reveal mean age for benign 40 years and for malignant 60 years and also differ from Harvey Simon at 2003[5] who revealed average age of ovarian cancer 60 years, this difference may be due to many possible causes like environmental as wars , radiation, chemical pollutions and stress, or hereditary, or the cases reported in

this study may not reflect all the cases of ovarian tumors because some prefer to be managed in more specialized centers outside the city ,or in our city older age groups usually not accept surgical interference .

Regarding to histopathological types of benign and malignant tumors the incidence was benign teratoma more frequent of benign tumors (39.3%) , and serouscystadenocarcinoma was more frequent for malignant cases (37.8%) , these two results were in agreement with Stuart et al (2000) ,cancer research UK2002, and Harvey (2003) [5,15,16] , in which their studies reveal that benign teratoma was the most frequent (40%) and serouscystadenocarcinoma was more frequent malignant (40%) .

Conclusion

As ovarian tumor is 5th common tumor among women and for malignant is the most lethal one , we conclude that young age group was affected with ovarian tumors in the last 5 years in Al-Najaf city .

Recommendations

- The city should have a centre for screening (mainly for highly risk group), detecting and management of ovarian tumor.
- It is advisable to have specialized laboratories concerned with immunohistochemistry for detection of ovarian tumor markers .
- Availability of radiotherapy , chemotherapy and follow-up centers .

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