International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sharma J et al. Int J Reprod Contracept Obstet Gynecol. 2014 Jun;3(2):434-436
www.ijrcog.org

pISSN 2320-1770 | eISSN 2320-1789

DOI: 10.5455/2320-1770.ijrcog20140630

Research Article

A study to evaluate the incidence of ovarian mass in local vicinity

Jyoti Sharma*, Deepak Desai, Farheen Radhanpuri, Pawanpreet Kaur

Department of Obstetrics & Gynecology, SBKS Medical Institute and Research Centre, Piparia, Vadodara, Gujarat, India

Received: 10 May 2014
Accepted: 23 May 2014

***Correspondence:**
Dr. Jyoti Sharma,
E-mail: drgaurav2001@yahoo.in

ABSTRACT

Background: Objective of current study was to evaluate the incidence of ovarian mass in pre and post hysterectomy patient.
Methods: This is a retrospective study, in which all patients who attended gynaec OPD and who were diagnosed as a case of ovarian mass were taken for study. This study was conducted in the department of obstetrics & gynaecology in Dhiraj general hospital in the time period of January 2013 to December 2013. Total 84 patients of ovarian mass were enrolled for the study.
Results: According to the study, incidence of ovarian mass is 7.8% in total patients admitted for surgical management. Out of which, incidence in post-hysterectomy patient was 9.5%, and malignant masses were 2.2%.
Conclusions: There is a rising incidence of ovarian mass in overall gynaec patients and also in post-hysterectomy patients.

Keywords: Hysterectomy, Ovarian mass

INTRODUCTION

Since beginning it's a dilemma whether to remove or preserve the ovaries. When the patient comes back with some symptoms, clinically attributable to ovarian site, it is a very difficult situation for the surgeon who has operated.[1]

As per American cancer society, about 22240 women will receive a new diagnosis of ovarian cancer. About 14230 women will die from ovarian cancer. About half of the women who are diagnosed with ovarian cancer, are 63 years or older. It is more common in white women than African-American women. The rate at which women are diagnosed with ovarian cancer has been slowly falling over the past 20 years. Lifetime risk of ovarian cancer: 1 in 73 (13%) (2008-2010).[2] Lifetime risk of dying of ovarian cancer: 1 in 95. Ovarian cancer causes more deaths than any other cancers of the female reproductive system.

The rate of patients presenting with adnexal mass to the O.P.D. has been increasing. Non neoplastic cyst are more common than the neoplastic ones. Follicular and Luteal cysts are most probably physiology. Follicular cyst is due to distension of un-ruptured Graaffian follicle. Corpus luteum cyst results from hemorrhage into a persistent mature corpus luteum.

An analysis of the literature shows that for operated cysts, approximately 75% are organic, 25% are functional, of these, 1 to 4% of the supposed benign cysts are found to be malignant.

Risk factors

- Age
- Genetic predisposition (BRCA1/2, family history)[3]
- Race
- Reproductive factors (early menarche, late menopause, nulliparity, fertility treatment

- HRT
- Exposure to environmental toxins (asbestos, smoking)

Protective factors

- Pregnancy
- Increasing parity
- Breastfeeding
- Oral contraceptive pill (OCP)
- Non-steroidal anti-inflammatory drug (NSAID)
- Bilateral oophorectomy [4]
- Tubal ligation
- Vitamin D

Aims

1. To evaluate the incidence of ovarian mass in pre and post hysterectomy patient.
2. To know the incidence of benign and malignant ovarian mass.

METHODS

The present study was conducted in the department of obstetrics and gynecology, Dhiraj Hospital, S.B.K.S. MIRC, Piparia, Vadodara, Gujarat.

This is a retrospective study, in which all patients who attended gynaec OPD, and who were diagnosed as a case of ovarian mass were taken for the study. This study was conducted in the department of obstetrics & gynaecology in Dhiraj General Hospital in the time period of January 2013 to December 2013.

Out of total 3652 patients who attended the gynaec OPD, 275 were diagnosed to have ovarian pathology, either clinically or ultra-sonographically. Out of these, only 84 were operated and the remaining 191 were those patients who were diagnosed with functional cyst and were treated with hormonal therapy or ones who were not willing for surgery.

These operated cases were further classified according to age, symptom presentation, investigations such as CA-125, as per their diagnosis either pre-hysterectomy or post-hysterectomy, and their histopathology report.

All those patients who had simple ovarian cysts <4 cm, clinically and ultra-sonographically, were excluded. These criteria helped exclude about 154 patients from inclusion in our study. 37 patients were not ready for surgery, due to their personal problems.

RESULTS

Table 1 shows overall percentage of patient with ovarian pathology, attending gynaec OPD was 7.53%.

Table 1: Incidence of patients with ovarian mass.

Total gynaec patients	Ovarian pathology	Percentage
3652	275	7.53%

Table 2 shows patients operated for ovarian pathology were 84 (7.88%) out of 1065 total patient admitted for surgical treatment.

Table 2: Surgical treatment for uterine v/s ovarian pathology.

Total patients admitted for surgical treatment	Operated for uterine pathology	Operated for ovarian pathology (pts. included in study).	
		No.	%
1065	981	84	7.88%

Table 3 shows maximum incidence of ovarian mass was in age group of 40-50 years that is 33.3% followed by in age group 20-30 years.

Table 3: Incidence of ovarian mass according to age.

Age	No. of patients	Percentage
<20 years	3	3.57 %
20-30 years	20	23.8%
30-40 years	15	17.8%
40-50 years	28	33.3%
>50 years	8	9.5%

Table 4 shows increase incidence of ovarian mass in post hysterectomised patients that is 9.5%.

Table 4: Incidence of ovarian mass in pre- and post-hysterectomised patients.

Total	Pre-hysterectomised patient	Post-hysterectomised patient
84	76 (90.5%)	8 (9.5%)

Table 5 shows that the most common presentation with ovarian mass was abdominal pain that is 54.4% followed by abdominal lump (14.2%) and pelvic heaviness (11.90%).

Table 5: Patient presentation.

Presentation	No. of patients	Percentage
Abdominal pain	46	54.7%
Abdominal lump	12	14.2%
Git symptoms	4	4.76%
Urinary symptoms	4	4.76%
Pelvic heaviness	10	11.90%
Asymptomatic	8	9.5%

Table 6 shows that CA125 was positive in only 3.57% patient.

Table 6: Distribution according to CA 125.

No. of patients	Positive		Negative
	No.	%	
84	3	3.57%	79

Table 7 shows that on histopathology most of the ovarian masses were benign in nature (97.16%) and only 2.2% were malignant in nature.

Table 7: Distribution according to histopathology.

	No.	Percentage
Malignant	2	2.2%
Benign	82	97.16%

Table 8 shows that out of the total benign ovarian mass most common type was serous cystadenoma that is 39.02%.

Table 8: Distribution of benign ovarian tumors.

Types	No.	Percentage
Serous cystadenoma	32	39.02%
Mucinous cystadenoma	12	14.63%
Dermoid	14	17.07%

DISCUSSION

In our study, incidence of ovarian pathology from total gynaec patients was 275/3652, (7.5%) and 84/1065 (7.8%) patients were managed surgically. According to age, incidence of ovarian pathology in 40-50 years of age group was found to be more. The incidence was surprisingly more in post-hysterectomy patients, which is 9.5%. The most common symptomatic presentation of patients in the OPD was abdominal pain (54.7%) followed by abdominal lump (14.2%). CA-125 was positive in 3.57% of patients. The most common benign tumors in our study were serous cystadenoma (39.2%), dermoid cyst (17.07%), mucinous cystadenoma (24.63%). The incidence of malignancy was 2.2%. These 2.2% of patients were non hysterectomised.[5-6]

CONCLUSION

Generally hysterectomy is regarded by females as end of gynaecological problems but emergence of a pelvic mass subsequently has profound physical and psychological impact. Oophorectomy during hysterectomy with anticipation of occurrence of malignancy is all together a serious decision, as it imposes the burden of acute menopause, on a woman, who has not anticipated it.

To eliminate possibility of an ovarian cancer post hysterectomy, whose incidence is only 1%, it is utterly inhuman and inconsiderate attitude to subject 99% women to problems of premature acute menopause, for years to come.[7]

For argument sake, it's true, that whenever post hysterectomy malignancy occurs in any woman, for doctors, it is 1-2%, but for patient it is 100%. Nonetheless why subject 99% women to premature menopause, for years to come, to avoid fear of consequences, that itself is uncertain to materialize?

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the institutional ethics committee

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DOI: 10.5455/2320-1770.ijrcog20140630
Cite this article as: Sharma J, Desai D, Radhanpuri F, Kaur P. A study to evaluate the incidence of ovarian mass in local vicinity. Int J Reprod Contracept Obstet Gynecol 2014;3:434-6.