



EVALUATION OF OVARIAN CYSTS IN POST HYSTERECTOMY PATIENTS IN A TERTIARY CARE INSTITUTE

Obstetrics & Gynaecology

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ABSTRACT

Introduction: To evaluate ovarian cysts detected in patients who had undergone previous hysterectomy and to study the clinical, pathological and surgical characteristics in these patients. **Material and Methods:** An observational study was conducted in the department of Obstetrics and Gynaecology, ESIC Medical college and Hospital Bihta Patna,Bihar, between –August 2022 January2024over a period of 18 months on patients who had undergone previous hysterectomy. A detailed history, clinical presentation was taken from patients who had ovarian cysts was included in the study. The previous records, characteristics of ovarian cysts and management were evaluated in these patients. **Results:** A total of 42 post hysterectomy patients were identified having ovarian cyst were included in the study. Most of them (68%) underwent hysterectomy at the age of 40-50 years; abdominal hysterectomy was common mode of surgery 34 (82%). , in 66% cases both the ovaries were preserved, pain abdomen was the commonest symptom patient had presented with (67%). The cysts were analysed with imaging modalities and CA-125 levels and managed surgically in 67%, followed in 25% and 7% of them were referred to oncology. **Conclusion:** All the post hysterectomy ovarian cysts should be managed individually based on symptoms, signs and size. Clinical evaluation and necessary investigations are to be done for better management either follow up or surgery. Not all post hysterectomy ovarian cyst need surgery.

KEYWORDS

ovarian cysts, hysterectomy, management

INTRODUCTION

The most common major gynecological surgery in India and worldwide is a hysterectomy, either abdominal or vaginal, or laparoscopic.^{1,2} Usually, hysterectomies are being done for indications like abnormal uterine bleeding (AUB), leiomyomas, adenomyosis, endometriosis, pelvic inflammatory disease (PID), prolapse of the uterus, obstetrical catastrophes, malignant conditions like cervical intraepithelial neoplasia, endometrial carcinoma, conditions involving adjacent organs which needs excision of surrounding structures.³ Whether the adnexa is retained is always questioned whenever a hysterectomy is planned for a benign condition.

Usually, salpingectomy can be done along with a hysterectomy to prevent the risk of malignancies of the Fallopian tubes. But regarding the conservation of ovaries, some points to be taken into consideration, like the benefits of prophylactic oophorectomy are the prevention of ovarian or breast malignancies in the future and reducing the possibility of future adnexal surgeries. Moreover, the risks involved with oophorectomy causing early surgical menopause are increased cardiovascular diseases, osteoporosis leading to bone fractures, lung cancers and total cancer mortality, and neurological and psychiatric disorders. So, as the benefits outweigh the risks, many studies suggest retaining the ovaries when hysterectomies are done during the premenopausal age group for benign conditions.⁴ When adnexal structures are retained during a hysterectomy, some women may get ovarian cyst in the future, which may require surgical intervention.

Most ovarian cysts are asymptomatic and disappear spontaneously. When ovarian cysts are large, they may cause abdominal discomfort. If pressing on the bladder it may also cause frequency of urination. The signs and symptoms of ovarian cysts may include: pelvic pain, GIT and dyspareunia other symptoms are nausea, vomiting, or breast tenderness, fullness and heaviness in the abdomen and frequency and difficulty emptying of the bladder.⁵ Patients with clear, simple ovarian cysts diagnosed by ultrasound might not require any treatment. However, monitoring using serial ultrasonography was carried out in women with simple ovarian cysts smaller than 5 cm and normal CA 125.^{6,7} Ovarian cancer, as the third most important genital cancer and fifth cause of cancer-related death in women, is diagnosed at terminal stages in 70% of cases. The incidence of subsequent surgery after hysterectomy varies from 2.8-9.2%.⁸ The aim of this study is to review cases of ovarian cysts treated in our institute and to analyse the characteristics of the ovarian cysts and its management.

MATERIALS AND METHODS

This is an observational study carried out in the department of Obstetrics and Gynaecology of ESIC Medical college and Hospital Bihta Patna, Bihar, between – August 2022 to January2024over a

period of 18 months. After a detailed history, clinical examination, screening tests and ultrasound, 42 posthysterectomy patients were identified having ovarian cysts and were included in the study for further management after taking their verbal consent. These patients came to the gynecology opd with complain of pelvic pain, GIT and dyspareunia other symptoms are nausea, vomiting, or breast tenderness, fullness and heaviness in the abdomen and frequency and difficulty emptying of the bladder. The relevant clinical detail and surgical details related to previous hysterectomy and ovarian cyst were collected by history taking and from patient medical records. Patient details including age, height, weight, and Body Mass Index [BMI, characteristics of present ovarian cyst, including symptoms, in, Cancer Antigen (CA)125 or other needed tumor marker levels, ultrasonographic or Computed Tomography scan (CT) or Magnetic Resonance Imaging (MRI) features, were noted. Patients who underwent either vaginal or abdominal hysterectomy for benign cause are included in study. In asymptomatic cases follow up was done for 3-6 months. Symptomatic patients with cysts > 5 cm further evaluation with doppler studies and CA-125 and other tumour markers (AFP, BHCG, CEA, LDH) was done, benign cases were surgically intervened and suspected cases were referred to oncology centre for better management.

All data were recorded in a carefully structured proforma. Analysis was done in the form percentage and represented in tables.

RESULTS

In this study of 42 patients, age range was between 40-65 years with mean age being 50 years. Among these 8 (18%) women underwent hysterectomy at an age less than 40 years, 28 (68%) women underwent hysterectomy between 40-50 years and 6 (14%) women underwent hysterectomy above 50 years.

The common mode of hysterectomy in the study group was abdominal hysterectomy in 34 (82%) women and 8 (18%) women underwent vaginal hysterectomy.

On reviewing the operating notes, it was confirmed that 28(66%) women had conservation of both ovaries at surgery. In 14(33%) women one ovary was conserved.

Patients presented with pain abdomen (67%) and mass per abdomen (25%) as most common symptoms followed by others (8%).

According to ultrasonography, the features of the ovarian cysts were categorized under size and nature of cysts, presence or absence of ascites, presence or absence of vascularity Since CA-125 is most widely accepted tumor marker in ovarian cancers, it was done in all cases.

Among the 42 patients included in the study in 11(26%) size of cyst was less than 5cm and in 31(74%) size of cyst was more than 5 cm. Among 42 patients CA125 was less than 35 in 28(67%) and between 35 to 200 was 11(26%). Total 28(67%) patient underwent laparotomy and 11(25%) underwent follow up. In histopathology report most common was simple cyst 12(43%) followed by serous cystadenoma 8 (29%) and mucinous cystadenoma 4(14%).

Table-1: Ovarian Status Of Hysterectomy (n=42)

Ovarian status	No of patients	Percentage
Both ovaries preserved	28	66%
One ovary preserved	14	33%

Table-2: Symptoms Of Patients (n = 42)

Symptoms	No of patients	Percentage
Pain abdomen	28	67%
Mass abdomen	10	25%
others	4	8%

Table -3: Ultrasound Features Of Ovarian Cysts, CA – 125 level (n= 42)

	Number of patients	Percentage
Size of cyst		
<5 cm	11	26%
>5 cm	31	74%
CA-125 levels	No. of patients	Percentage
<35	28	67%
35-200	11	26%
>200	3	7%

Table-4: Management Approach Of Ovarian Cysts (n=42)

Management	No of patients	Percentage
Surgical	28	67%
Follow up	11	25%
Referred to Oncology	3	7%

Table-5: Histopathology Reports (n= 28)

Histopathology	n = 28	Percentage
Simple cysts	12	43%
serous cystadenoma	8	29%
mucinous cystadenoma	4	14%
Dermoid cyst	2	7%
Endometrioma	2	7%

DISCUSSION

Hysterectomy is one of the most commonly performed gynecological surgical procedures among women.

In a recent study of Casiano *et al.*,⁹ the incidence of oophorectomy after hysterectomy was found as 9.2%.⁹ They postulated that disruption of ovarian blood flow after hysterectomy might alter ovarian function, which could lead to adnexal pathologies.

Mean age of presentation of symptoms is 50 years, mean age of hysterectomy was 40 years which is almost similar to study done by Öksüzöglü *et al.*,¹⁰ (46.4 years and 42.4 years respectively). Abdominal hysterectomy is still the commonest approach even if pre-requisites for vaginal approach are fulfilled. Previous records of the patients in our study showed that 82% cases underwent abdominal hysterectomy and vaginal hysterectomy was done in only 18% of cases. Our study is comparable to Naz F *et al.*,¹¹ (79% Vs 21%), Bhatnagar *et al.*,¹² (76% Vs 24%). Laparoscopy assisted hysterectomy was not observed in our study as most of the patient belong to remote places where abdominal hysterectomy is the preferred route.

Commonest symptom of presentation was vague abdominal pain in 28 cases (67%), patients with larger cysts often presented with mass abdomen 10 (25%) similar to study done by naz F *et al.*, where commonest symptom of presentation was pain abdomen.

A cancer antigen 125 (CA-125) test may assist in the evaluation of an adnexal mass but since CA 125 levels are elevated in conditions other than ovarian cancer therefore this level alone is not recommended for differentiating between benign and malignant adnexal mas.

In this study patient with CA125 less than 35 was 28(67%), between 35 to 200 was 11(26%). In a study by Movva *et al.*,¹³ 53% of women had an ovarian cyst of < 5 centimeters, and 55% with normal CA 125

levels and CA 125 levels > 200 U/ml were seen in 9% of women. Cases with very high levels of CA 125 levels (more than 200 IU) with abnormal doppler with high suspicion of malignancy 3(7%) were sent to oncology centre and were followed up.

Ovarian cysts with size less than 5 cm (11 cases, 25%) were managed conservatively mostly, 4 out of these were symptomatic and operated. Observational management was done in 11 (25%) patients; most of them had smaller cyst size < 5 cms and most of them presented with non-specific symptoms. Most of them there was complete regression of symptoms while others needed medical management for short span during follow up.

The higher incidence of surgical management in this study is due to the hospital being tertiary care centre and most of the patients come to resort after a long ignorance of symptoms and prolonged improper or failed medical management given at peripheries.

In our study histopathological findings showed 12 (43%) women had simple cyst which is comparable to Naz F *et al.*, study¹¹ 55.8% had simple cysts. The limitations of our study are that it is performed in a relatively short time frame to track complications in patients after hysterectomy and in a relatively small group of people. However, despite these limitations, this study illuminates the advice and knowledge about surgical decisions before and for women with ovarian cysts after a hysterectomy.

CONCLUSION

Ovarian cancer is one of the most common gynaecologic cancers that rank third after cervical and uterine cancer¹⁴. It also has the worst prognosis and highest mortality.

All patients undergoing a hysterectomy may not need an oophorectomy. If the ovaries are in good condition and a hysterectomy is being done for benign indications, better to preserve the ovaries as much as possible, by explaining the need for periodic follow-up to the patients. Also, if they are small with normal tumor markers, more than half of the ovarian cysts in hysterectomized women will disappear soon with conservative management. Among the operated cases, most are benign and originated from the ovary. With periodic follow-ups and with ultrasound examinations, this number can be further decreased by early recognition and medical management of cysts.

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