

Case Study- Ovarian Cyst

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Abstract:- Fluid-filled sacs or pockets within or on the surface of an ovary are known as ovarian cysts. On either side of the uterus, women have two ovaries, each roughly the size and shape of an almond. Throughout the reproductive years, ova, or eggs, are released monthly in cycles after developing and maturing in the ovaries. Ovarian cysts affect a lot of women at some point. The majority of ovarian cysts are benign and cause little to no discomfort. Without therapy, the majority vanishes in a few of months. On the other hand, ovarian cysts, particularly those that have burst, might present with severe symptoms. Get routine pelvic exams and be aware of the symptoms that may indicate a potentially dangerous issue to safeguard your health.

Keywords:- Ovaries, Polycystic, Bleeding, Dermoid, Endometrioma.

I. INTRODUCTION

The fluid-filled sacs in the ovary are called ovarian cysts. They often arise during ovulation and are widespread. Every month, the ovary produces an egg during ovulation. Many females who have ovarian cysts are asymptomatic. Usually, the cysts are not harmful. The most prevalent endocrine condition affecting women of reproductive age, Polycystic Ovary Syndrome (PCOS), affects one in four Indian women, according to research done by the medical professionals at AIIMS. According to the data, the country's PCOS prevalence among women is over 25%, higher than that of the United States and several European nations. A nationwide investigation is being carried out by the Indian Council of Medical Research (ICMR) to determine the precise disease burden and prevalence.

According to the statement, stated by Dr. M Ashraf Ganie, assistant professor of endocrinology at AIIMS. "The available data about PCOS shows that 20 to 25 percent of Indian women of childbearing age are suffering from the syndrome, while in the USA and European countries this number ranges between four to 10 percent and two percent, respectively,"

II. CASE STUDY OF MRS. B:

Mrs. B, aged 43 years, came with the complaints of abnormal uterine bleeding since 5 months. She also has complaints of excessive clots while bleeding, extreme fatigue and tiredness. Complaints of cough and cold for 10 days, burning micturition for 2 months on and off. She also has complaints of itching over the external genitalia; there is no significant family history and past medical history. When she was twelve years old, she reached menarche. Her menstrual cycle is regular of 3-4/ 28. She got married at the age of 19 years. She maintains normal sexual relationship with her husband but now she has complaints.

A. Defecation

The cyst typically has a very thin wall surrounding it and just contains fluid. An ultrasound can be used to identify what is known as a simple cyst. The fluid that stays in a follicle after it fails to burst and release an egg might develop into an ovarian cyst.

B. Polycystic Ovary Syndrome (PCOS)

It is a disorder that results in the development of numerous tiny, benign cysts on your ovaries. The cysts are caused by abnormal hormone levels and are tiny egg follicles that do not develop to ovulation.

C. Follicle Cyst

A follicle is a bag in which an egg develops during a woman's menstrual cycle. You can find this sac inside the ovaries. This follicle, or sac, usually bursts open to release an egg. On the other hand, the fluid within the follicle may develop an ovarian cyst if it doesn't burst apart.

D. Types of Ovarian Cysts

Ovarian cysts come in different varieties, including endometrioma and dermoid cysts. Functional cysts, however, are the most prevalent kind. Follicle and corpus luteum cysts are the two categories of functional cysts.

➤ *Follicle Cyst*

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➤ *Corpus Luteum Cysts*

Normally, follicle sacs disintegrate after releasing an egg. However, more fluid may accumulate inside the sac if the sac doesn't dissolve and the follicle's opening closes, which results in a corpus luteum cyst.

➤ *Other Types of Ovarian Cysts Include:*

- Cystadenomas: noncancerous growths that can develop on the outside of the ovaries;
- Dermoid Cysts: sac-like growths on the ovaries that can include hair, fat, and other tissue
- Endometriomas: tissues that ordinarily form within the uterus can instead grow outside of it and adhere to the ovaries, giving rise to a cyst.

III. RISK FACTORS

Your risk of developing an ovarian cyst is heightened by:

- Hormonal problems. Taking the fertility medication clomiphene (Clomid), which induces menstruation, is one of them.
- Pregnancy. Occasionally, the ovulation cyst remains on your ovary for the duration of your pregnancy.
- Endometriosis. Under this syndrome, endometrial cells from your uterus develop outside of it. A portion of the tissue may develop and adhere to your ovary.
- A severe pelvic infection. Cysts may develop if the infection gets to the ovaries.
- A previous ovarian cyst. You are likely to develop more if you have already had one.

Polycystic ovarian syndrome is a disorder that affects certain women. This disorder indicates that there are a lot of little cysts in the ovaries. It may result in ovarian enlargement. The infertility caused by polycystic ovaries can be treated or avoided.

➤ *Symptoms of Ovarian Cysts:*

Ovarian cysts frequently show no symptoms at all. However, symptoms can appear as the cyst grows.

Table: 1 Comparison of Symptoms:

BOOK PICTURE	PATIENT PICTURE
<ul style="list-style-type: none"> • bloating or swelling in the abdomen • Pelvic pain prior to or throughout the menstrual cycle; <ul style="list-style-type: none"> • Intense constipation • unpleasant sexual relations • discomfort in the legs or lower back <ul style="list-style-type: none"> • Tenderness in the breasts • queasy and regurgitating <p>The following are signs of a severe ovarian cyst that need to be treated right away:</p> <ul style="list-style-type: none"> • excruciating or acute pelvic pain <ul style="list-style-type: none"> • hyperthermia • lightheadedness or faintness; <ul style="list-style-type: none"> • fast breathing 	<ul style="list-style-type: none"> • Present • Present • Present • Present • Present • Present • Present • Present • Present • Present • present

These symptoms can indicate a ruptured cyst or an ovarian torsion. Both complications can have serious consequences if not treated early.

IV. COMPLICATIONS

Certain women experience less common types of cysts discovered by a doctor during a pelvic check. After menopause, cystic ovarian tumours may become malignant (cancerous). This is the reason why routine pelvic exams are crucial.

➤ *The Following are Uncommon Side Effects of Ovarian Cysts:*

- Ovarian torsion. An enlarged cyst may cause the ovary to shift, which raises the risk of an uncomfortable twisting of the ovary (ovarian torsion). Severe pelvic discomfort that starts suddenly is one symptom, along with nausea and vomiting. Blood flow to the ovaries can also be reduced or stopped by ovarian torsion.
- Rupture. A burst cyst can result in internal bleeding and excruciating agony. The likelihood of a cyst rupturing increases with size. Vaginal sex and other vigorous activities that impact the pelvis raise the risk as well.

- **DIAGNOSING AN OVARIAN CYST:** An ovarian cyst may be found by your doctor during a standard pelvic check. They might conduct an ultrasound test to establish the existence of a cyst if they observe swelling on one of your ovaries.

An ultrasound test, also known as ultrasonography, is a type of imaging test that creates an image of your inside organs using high-frequency sound waves. The size, location, form, and content (solid or fluid-filled) of a cyst can all be ascertained with ultrasound testing.

Table: 2 Investigations Undertaken by the Patient:

BOOK PICTURE	PATIENT PICTURE
History collection	history collection has taken
<ul style="list-style-type: none"> • A complete physical examination <ul style="list-style-type: none"> • A pelvic examination • Laboratory studies: complete <ul style="list-style-type: none"> • blood count(CBC), basic • metabolic panel, • Blood biochemistry • Thyroid function test • Urinalysis: Urine culture and Sensitivity • Ultrasound Imaging 	physical examination is done total WBC count-10370 cells/cum, neutrophils-58.3%, lymphocytes-34.9%, eosinophil- 3.4%, basophils-0.4%, haemoglobin-9.2 gm/dl, ESR(1hr)-64mm, haematocrit(PCV)- 35.2%, platelets count-3.28 lakhs/cumm Urea-27mg/dl, Creatinine-1.1mg/dl, Glycosylated Haemoglobin (HBA1C)-6.32%. Sodium: 136.0 mEq/l, Potassium: 3.96 mEq/l, Chlorides: 95.6 mEq/l. Thyroid Function test: Free T3-2.65pg/ml, Free T4-1.18NG/DL, Thyroid Stimulating Hormone(TSH)-5.74uIU/ml. Proteins: present, PH: 8 Gram Stain: Gram negative bacilli seen, few pus cells seen, colony count-10 ⁵ cfu/ml Escherichia Coli grown in culture. Impression: Bulky uterus with intramural fibroid Diffusely thickened endometrium Right ovarian simple cyst

The following imaging methods are used to identify ovarian cysts:

- CT scan: an apparatus for body imaging that produces cross-sectional pictures of interior organs
- MRI: a diagnostic that creates detailed pictures of interior organs using magnetic fields
- Ultrasound device: imaging tool for ovarian visualization

Your doctor might not suggest treatment right away because most cysts go away in a few weeks or months. Alternatively, to assess your condition, they might do the

ultrasound exam again in a few weeks or months. Your doctor will order additional tests to rule out other possible causes of your symptoms if your condition doesn't improve or if the cyst gets bigger.

➤ *These Include:*

- Tests for pregnancy to ensure you are not pregnant
- Hormone level tests to identify problems related to hormones, such as excess progesterone or oestrogen
- CA-125 blood test to screen for ovarian cancer

➤ *Treatment for an Ovarian Cyst:*

In the event that the cyst becomes larger or does not go away on its own, your doctor may suggest therapy to reduce or

remove it. Your doctor may recommend treatment to shrink or remove the cyst if it doesn't go away on its own or if it grows larger.

Tab: 3 Management of Ovarian Cysts

Book picture	Patient's picture
<p>Birth control pills: Your doctor may recommend oral contraceptives to limit ovulation and stop the growth of new cysts if you have recurrent ovarian cysts. Moreover, oral contraceptives can lower your risk of developing ovarian cancer. Postmenopausal women are at an increased risk of developing ovarian cancer.</p> <p>SURGICAL MANAGEMENT:</p> <p>Laparoscopy: Your doctor may do a laparoscopy to surgically remove your cyst if it is tiny and the results of an imaging test rule out cancer. In order to remove the cyst, your doctor will make a tiny incision close to your navel and then insert a tiny instrument into your abdomen.</p> <p>Laparotomy: Your doctor may do surgery to remove a big cyst from your belly by making a large incision. Your ovaries and uterus may be removed during a hysterectomy if the results of the fast biopsy indicate that the cyst is malignant.</p> <p>NURSING MANAGEMENT:</p> <ul style="list-style-type: none"> ➤ Monitor vital signs, ➤ Start iv fluids, ➤ collect all the investigation reports, administer pre-medication ➤ consent form should be get signed, explain the client about her condition and treatment ➤ Measures, check for anesthetist opinion, give psychological support. 	<ul style="list-style-type: none"> • tab. Hbset • tab. Shelcal • C. Becosules • Syp. Ascoril • Vaginal pack • tab. Azithromycin 500mg • tab. Rantac 150mg • tab. Ciplox -72 <p>Mrs. B is planned for total abdominal hysterectomy</p> <p>✓ Nursing care was given to Mrs. B like monitoring vitals,</p> <p>✓ maintained iv fluids,</p> <p>✓ getting consent, due drugs given,</p> <p>✓ got anesthetist opinion,</p> <p>✓ pre-medication given,</p> <p>✓ explained all the Procedure and adequate psychological support was also given.</p>

➤ *Prevention of Ovarian Cysts*

It is not possible to avoid ovarian cysts. Routine gynaecologic exams, however, can identify ovarian cysts early on. Ovarian cysts that are benign don't get malignant. On the other hand, ovarian cyst symptoms can be mistaken for ovarian cancer symptoms. For this reason, it's critical that you see your doctor and get the right diagnosis.

➤ *Notify your Physician of any Symptoms that Seem off, Like:*

- alterations in your menstrual cycle;
- persistent pelvic pain;
- appetite loss;
- inexplicable weight loss;
- feeling of fullness in your abdomen

V. CONCLUSION

Ovarian cysts are not uncommon, particularly in women who are still menstruating. There are fluid-filled or solid pockets within or on top of your ovary. They are usually innocuous and painless. You may not even be aware that you receive one each month as part of your cycle. Usually, they disappear without any medical intervention. Pregnancy is another prevalent reason for cysts. When a cyst persists or enlarges, it becomes an issue. It might hurt at times. Cancer is another option, though it's not common. When you age, the likelihood increases.

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