

## Ovarian cysts

Q: What are ovaries?

A: Normal women have small white organs called ovaries placed by the side of the womb. They are normally about half a lemon in size and are responsible for the production of hormones called oestrogen and progesterone in the body. They extrude human eggs or ova every month by a process called ovulation.

Q: What are ovarian cysts?

A: Sometimes the follicles which harbour these ova get filled with a watery fluid or even blood. This gives rise to what are called ovarian cysts. They are basically membranous sacs in the ovary filled with fluid. More often than not, these ovarian cysts are harmless and could be left alone. But there are situations where surgical intervention will be needed.

Q: What are the different types of ovarian cysts?

A: The various types of ovarian cysts generally found are described below:

### **Harmless functional cysts:**

Due to the routine use of ultrasonography for a myriad of conditions, ovarian cysts are normally found in many women. They could be harmless cysts which are called "functional cysts". They normally appear and disappear by themselves. By and large simple cysts that are less than 5-6 cm in size do not need any intervention. A repeat ultrasonography after 3 months may show disappearance of the cyst. If the cyst persists, it is better to have the cyst removed surgically by a procedure called ovarian cystectomy.

### **Twisted ovarian cysts:**

Sometimes the cysts turn around or undergo a twist, so to say. This is usually associated with intermittent abdominal pain,. The pain is usually more in certain positions, like turning on to one side. Sometimes it may be accompanied by vomiting.

A twisted ovarian cyst, if left alone, will have a jeopardised blood supply and this will lead to gangrene of the ovary. So whenever there is acute pain in the abdomen and an ovarian cyst is diagnosed, the woman is subjected to surgery, usually ovarian cystectomy. It can be done laparoscopically in places there are facilities to do the procedure or by open surgery.. If surgery is delayed and the ovary has undergone gangrene, the ovary will have to be sacrificed.

### **Endometrioma:**

Sometimes the ovarian cyst is filled with dark, chocolate coloured fluid, which is old blood. This is caused in women who suffer from a disease called endometriosis. In endometriosis, a tissue called endometrium, which normally lines the uterus, is found in places outside the uterus. The uterus, normally sheds this endometrium outside at the time of menstruation. Instead, if the endometrium is found in the abdomen, the woman is said to have endometriosis. A collection of endometrium along with blood, in the ovary, which enlarges to form a cyst, is called an Endometrioma or Chocolate cyst. If it occurs in women who do not have children, it may cause infertility. The ideal treatment for endometrioma is laparoscopic ovarian cystectomy,

Endometriomas, in spite of very good surgery do tend to recur, as, the basic disease Endometriosis, with retrograde menstruation, where the menstrual blood goes retrograde into the abdomen, is not cured. Repeated ovarian cystectomies in such patients will lead to loss of precious ova. Infertile patients with recurrence of endometrioma should think in terms of undergoing procedures like Artificial Reproductive Technology instead of undergoing repeated surgeries.

**Benign ovarian tumours:** Sometimes ovarian cysts are caused by noncancerous benign tumours like serous cystadenoma, mucinous cystadenoma, etc. These cysts do not regress and need surgical removal. The cyst can be removed by cystectomy through laparoscope or open surgery. Once removed, there is not much chance of recurrence.

**Dermoid cysts:** Sometimes, the ovarian cyst is filled with many tissues like hair, teeth, bone, fatty sebaceous material, etc. These are called Dermoid cysts. These are called germ-cell tumours. Usually this occurs in the younger age group. Treatment is by cystectomy. There is very little chance of recurrence. In one study, after Dermoid resection, 3.4% patients were seen to have a recurrence within the study period of 6 years. Dermoids could also occur bilaterally and there is a small risk of malignancy in untreated patients. It is possible to get pregnant even after removal of Dermoids.

**Malignant ovarian cysts:** Malignant ovarian cysts usually occur bilaterally, although it could also occur unilaterally. Ultrasonogram in such patients show solid elements in the ovarian cysts, besides the usual fluid that is seen in non-cancerous cysts. Tumour markers like CA -125 are raised in such patients. This could be detected by testing the blood. Special ultrasound examination like colour Doppler ultrasonography can show increased blood flow in the cyst.

If the cyst is malignant, in young patients, in some particular cases, it may suffice to remove only the affected ovary. In most cases, in the older age group the uterus along with both the ovaries will have to be removed. Open surgery is the preferred modality of surgery in these patients.

Q: Should all women with ovarian cysts undergo surgery?

A: Not all women with ovarian cysts should undergo surgery.

**Indications for surgery in ovarian cysts:**

1. The cyst persists after 3 months; Persistent ovarian cysts could be caused by benign ovarian tumours and need removal.
2. The cyst is associated with pain or increase in size: Pain could be due to a twist in the ovary, which may lead to loss of blood supply to the ovary and subsequent death of the ovary.
3. Endometrioma: A common cause for ovarian cysts is an endometrioma. In this condition, menstrual blood collects over the ovary, finally ballooning it into a blood filled sac. This is called an endometrioma and the blood inside the sac is usually old blood.
4. Cancerous cysts: Cancerous cysts usually have solid components besides the usual liquid contents of simple ovarian cysts. These differences could be detected by ultrasonography. A special type of ultrasonography called colour doppler ultrasonography could detect the presence of increased blood flow in the ovary suggestive of malignancy in the ovarian cyst. Some blood tests like CA125 levels could also be useful in the detection of malignancy.

Q: What are the types of surgeries performed for ovarian cysts?

A: Ovarian cysts could be removed by peeling them off the ovaries by a procedure called cystectomy. Sometimes the ovary is removed along with the cyst. Both these procedures could be done either laparoscopically where there are just 2 or 3 holes in the abdomen and the patient requires very little convalescence, or by open surgery, where the abdomen will have a long cut in it and the patient may have to refrain from lifting heavy weights for a few months.

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