What you must know.....

about Tumours of Uterus & its Appendages

Uterine tumour is a general term and encompasses uterus and its appendages like fallopian tube, ovaries and cervix. It is a long list but we shall discuss commonly occurring conditions like

- Fibroids
- Cervical Polyps
- Cervical dysplasia
- Ca Cervix
- Ca endometrium
- Ovarian tumours
- Ca Ovary
- Chocolate cyst of ovary

PRESENTATION: Most of the above uterine and ovarian tumours are asymptomatic. Contrary to popular belief, menstrual irregularities occur only late and that too in polyps and sub serous fibroids. Vague GI symptoms, flatulence and distension of abdomen may be the first complaints. Most of these conditions are first noticed accidentally as a result of Preventive checks like Ultrasonography or PAP smear.

1. FIBROIDS – Uterus is made up of Endometrium & Myometrium. Fibroid is an abnormal growth of cells in the myometrium. The term "fibroid" is misleading. The cells are not fibrous; they are composed of abnormal muscle cells. Uterine fibroids are almost always benign and affect 20% to 40% of all women over 35. Fibroids don't develop after menopause.

Signs & Symptoms

- Most often no symptoms.
- Polymenorrhoea - frequent menstruation associated with large clots
- Menorrhagia - Increased menstrual flow
- Metrorrhagia - bleeding between periods.
- Dyspareunia – painful intercourse - or bleeding after intercourse.
- Infertility, if large enough, distorts the uterine cavity
- Feelings of pressure on the urinary bladder or rectum, if large.
- Feeling of a lump in the lower abdomen, if large.

Causes

Unknown. However, fibroids may be hereditary. Some studies indicate that: Women with fibroids may have higher levels of the human growth hormone. Contraceptive pills, especially those with large amounts of estrogen, may stimulate the growth of fibroids.

Diagnosis

Most often a chance diagnosis on a routine pelvic ultrasonography.

Menstrual abnormality and physical exam by a doctor.

Treatment

Fibroids can often be removed surgically (myomectomy) without removing the entire uterus. The ability to conceive continues as long as the uterus remains. In cases where family is complete or in elderly women total removal of uterus (hysterectomy) is recommended.

2. CERVICAL POLYP

Small, fleshy, fragile, bulbous growths with a stalk arising from the lining inside the uterus and protruding through the cervix. They may be single or multiple. Affecting all ages but more common in childbearing age. Found more in Diabetics and women with recurrent vaginitis/ infections.

Signs & Symptoms

- Inter menstrual spotting.
- Spotting of blood after sexual intercourse.
- Vaginal discharge – mostly white but may be blood tinged or foul smelling.

Causes

Cervical polyps are caused by cervix inflammation from

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infection, erosion or ulceration. They frequently accompany chronic infections in the vagina or cervix, although they are not contagious. The small growths are usually benign, but in very rare cases, they represent early cancer of the cervix.

Treatment

Usually curable with surgery. They are removed either with a wire snare, electrocautery or cryocautery (liquid nitrogen). This is often done on an outpatient basis. Normally, cauterization of the cervix is recommended after removing the polyp to prevent regrowth. Polyp that accompanies cervicitis (inflammation or infection of the cervix) may require more extensive surgery. There may be mild pain during the procedure and mild to moderate cramps for several hours. Spotting of blood may occur for 1 or 2 days.

3. OVARIAN CYST

Ovarian cysts are fluid filled sacs that form on the ovaries. Ovarian cysts are very common in women during their reproductive years. The first important decision to be made, when an ovarian cyst is found, is whether this cyst will go away without treatment. Spontaneous resolution is expected and is normal for the functional cysts related to ovulation. Women release an egg from a small ovarian cyst each month. The small cyst becomes a corpus luteum cyst and then lasts for two to three weeks waiting to support a new pregnancy. These normal cysts, also called functional cysts, are usually only 2-3 cms in size but may reach 6-8 cms if filled with blood or extraordinary amounts of fluid.

Functional cysts:

Functional cysts uniformly resolve in the span of one to two menstrual cycles and can be identified by their gradually reducing size. This explains why premenopausal women have small cysts in the ovary all the time. But functional cysts normally do not grow to cause pain. Most ovarian cysts are benign. Although ovarian cysts may cause symptoms that require treatment, they usually don't spread to other parts of the body.

Endometrial/Chocolate Cyst

In cases of endometriosis, if endometrial cells are deposited on the ovary, they may cause an endometrial cyst to grow. This cyst is sometimes called a chocolate cyst because of the dark, red-brown blood inside of it and normally presents with an acute presentation mimicking Appendicitis (if on Rt side) or an ectopic pregnancy in sexually active women. Clinical differentiation is difficult and imaging (ultrasonography) may have to be resorted to. Ectopic pregnancy is ruled out by beta-HCG- blood test.

Symptoms

Ovarian cysts do not usually cause any symptoms. However, when symptoms do occur, they may include:

- Dull ache, sense of pressure, or feeling of fullness in the abdomen
- Painful intercourse
- Irregular or unusually painful periods
- Enlargement or swelling of the lower abdomen
- Symptoms are caused by:
- Cyst bleeding or breaking open and causing peritonitis
- Very large cyst causing pressure effects
- Torsion of the cyst, which causes severe pain and warrants immediate surgery.

Diagnosis Pelvic Exam

Ovarian cysts are often felt by you during a pelvic examination and other tests may be performed to confirm its presence --- even if there are no symptoms. Commonest investigation resorted to, is Ultrasound.

Treatment

Treatment for ovarian cysts depends upon:

- Cyst size
- Cyst type
- Patient's age {if over the age of 40 ie premenopause, risk of ovarian cancer increases, therefore treatment may be more aggressive.) Functional cysts, which do not require active therapy, are usually not found in menopausal women.

Treatment Options

- **Wait & watch**
  Most cysts go away on their own after a few menstrual cycles.
- **Hormones**

In some cases, your health care provider may prescribe hormones (birth control pills) to prevent ovarian cysts. Not all types of ovarian cysts respond well to birth control pills.

Surgery thru Laparoscopy

Surgery may be needed if:

- Cyst persists even after few menstrual periods
- Hormonal treatment is ineffective
- Very large cysts
- Severe Symptoms (pain, bleeding)
- Torsion of the Cyst

4. CA OVARY

Frequently no symptoms occur until tumor becomes large.

Earliest symptoms:

- Vague discomfort in the lower abdomen.
- Gastrointestinal upsets like nausea & a gassy feel.
- Irregular menstrual periods.

Later symptoms:

- Deep voice
- Excessive hair growth, due to absence of estrogens
- Unexplained weight loss.
- An enlarged, hard and sometimes tender mass in the lower abdomen.
- Painful sexual intercourse.
- Anaemia.

Diagnosis

- Lab studies for CA 125 (tumor markers - substances that are detected in blood only if one has cancer. They are also useful to learn about grade of cancer and response to therapy). CA 125 > 35 units indicates a greater likelihood of malignancy
- Transvaginal Sonography is useful for screening high risk women. It is helpful in differentiating masses that are benign.

Differential Diagnosis – Once an ovarian tumor is detected, it must categorized as functional (follicular cyst & corpus luteum cyst), inflammatory (tubo-ovarian abscesses) benign neoplastic or potentially malignant. This categorization is done based on age, size of the mass, ultrasound findings, CA 125 levels and presence of symptoms.

As a general guideline, in a pre-menopausal woman, an asymptomatic, mobile, single, unilateral single mass of 8-10 cms is to be observed for 4-6 weeks.

On the other hand in a post-menopausal woman, most ovarian masses require surgical evaluation ie laparoscopic viewing cum biopsy. Even in post-menopausal women a single, mobile, cystic mass of less than 5 cms with a normal CA 125 may be followed [? VP] closed with Trans vaginal Sonography.

Treatment

Urgent surgery as most women with ovarian cancer are diagnosed with an advanced disease and 5 year survival is barely 17% with distant metastases.

TUMOUR MARKER

Early detection of cancer is a priority for all, as it offers the best chance for cure. The aim is to diagnose cancer when tumour is small enough to be removed surgically.

A tumour marker is a specific substance present in the blood of a patient having the tumour. These tumour markers are quite sensitive to the type of the cancer. The ease of collecting the sample and being non-invasive makes tumour markers superior to other examinations based on physical methods.

TUMOUR MARKERS GENERALLY USED IN

1. Screening of high risk population
2. Clinical staging of cancer
3. Indicator for disease progression
4. To evaluate the success of treatment
5. To detect the recurrence
6. Monitoring response to therapy

COMMONLY USED TUMOUR MARKERS IN WOMEN

1. CA – 125: It is a marker for ovarian and endometrial cancer
2. CA 15-3: Useful in staging Breast cancer. Also in cancer of pancreas, ovary and lung.
3. CEA: Primarily indicated for Cancer of the colon

ULTRASONOGRAPHY IN WOMEN

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Many diseases of the female genitalia tract can be diagnosed by ultrasound.

1. **ABNORMALITIES OF THE UTERUS**
   a. Congenital abnormalities-like absent uterus, hypoplastic uterus, bicornuate uterus, haemtocolpos, haematometrocolpos
   b. Acquired abnormalities - like fibroids, adenomyosis, endometrial polyp, malignancy.
2. **ABNORMALITIES OF THE OVARIES**
   Congenital abnormalities- like absent or streak like ovaries, dermoid cysts of ovaries
   a. Acquired abnormalities- like simple cysts, haemorrhagic cysts, endometric ovarian disease, malignant tumors of the ovaries.
3. **ABNORMALITIES OF THE TUBES**
   Hydrosalpinx or pyosalpinx can be selected.
   Patency of the tubes can be checked with sono-salpingography
   Ectopic pregnancy can be detected.
4. **PREGNANCY OR INFERTILITY**
   In obstetrics, ultrasound is used to examine the growing fetus inside the mother's uterus. Being able to evaluate the pregnancy in this way is especially important if the doctor suspects that the fetus is growing improperly or may have an abnormality. The doctor can then advise a course of action in an attempt to reduce the risks to you and your baby.

In a way, ultrasound serves as a type of physical exam of a fetus. It can provide valuable information about the fetus's health and well-being, for example

TRANS VAGINAL SONOGRAPHY

The development of high frequency transvaginal probes is producing a diagnostic revolution in gynecology. It allows the doctor to examine the pelvic organs from a different point of view. Those who think this is an overstatement have either not used the technique or have not invested the time to become proficient enough with the technique to appreciate its real potential.

Transvaginal sonography adds information on the size, location, physiology and possible pathology of every organ in the pelvis.

Transvaginal sonography should be done as a routine whenever possible to evaluate pelvic pain, abnormal bleeding, missed periods and amenorrhoea, adnexal masses, infertility and early pregnancy; to monitor ovulation induction; to diagnose an ovulation; to rule out ectopic pregnancy and so on.

Addition of colour Doppler gives more information especially in cases of suspected ectopic pregnancy and invasive more.

Lastly, a thorough transvaginal scan by an experienced hand, minimizes the chances of missing an abnormality. Moreover we have found that discomfort of a full bladder is more than discomfort by a transvaginal sonography and majority of our patients have been quite comfortable with transvaginal sonography except for a few patients with severe pelvic inflammation.

Vaginal ultrasound is also useful in infertile couple to retrieve eggs for in vitro fertilization, a process in which sperm from a man and egg from a woman are fertilized in a dish in a lab and then placed inside the woman's uterus to grow into fetus.