**Subgect #6.**

**Abnormal position of the female genital organs. Pelvic organs prolapse.**

**Abnormalities of female genitalia position.**

Uterus should be located in the center of small pelvis at the same distance from its walls, pubic center and sacrum. The organ is attached to the walls of small pelvis by ligamentous apparatus.

Support the uterus and the pelvic structures are maintained in proper position by the uterosacral ligaments, round ligaments, broad ligament, and cardinal ligaments. The two cardinal ligaments maintain the cervix in its normal position. The uterosacral ligaments normally hold the uterus in a forward position

The broad ligament suspends the uterus, fallopian tubes, and ovaries in the pelvis. Three supporting structures are provided for the abdominal pelvic diaphragm. The bony pelvis provides support and protection for parts of the digestive tract and genitourinary structures, and the peritoneum holds the pelvic viscera in place.

At normal location, uterine body and cervix form an obtuse angle, which is directed forward. Version causes changing of proportions between body and cervix. Sometimes version is not manifested by any symptoms, but patients may have complains about lower back pain, which enhance during menstruation, sense of pressure in lower abdomen, dysuria, and in some cases – about pain during sexual intercourse

* Anteversion – normal position of the uterus (tilted forward).
* Retroversion – tilted posteriorly.
* Dextroversion – tilted to the right.
* Sinistraversion – tilted to the left.

**Etiology**. Typically, this pathology is caused by past inflammation processes of the reproductive system internal organs, weakness of ligaments that fix the uterus, frequent constipations, difficult labor, abortions, which have complicated by inflammations, uterine tumors (myoma, fibroid, )ovarian cysts. Flexion is an angulation of uterus. There are the following forms of flexion: anteflexion – bend forward and retroflexion – bend backwards. Anteflexion is a normal position. There is an obtuse angle opened anteriorly, formed between uterine body and cervix. In pathological cases – anteflexion – when the angle between the body and cervix is escalating, there is observed a version. Retroflexion is a bending of the uterus backwards, at which the angle between body and cervix is reverted. With this type of flexion body of the organ is reflexed, while cervix is directed anteriorly.

Retrodeviation of the uterus Retroflexio and retrovertsio is called retrodeviation.

* 1st degree the uterus is tilted posteriorly but anteflexio is preserved.
* 2nd- the uterus is tilted posteriorly without a distinguished angle between uterus body and cervix
* 3rd – uterus is tilted posteriorly with retroflexion. Generally, the majority of women suffering from a retroverted uterus experience no symptoms. However, if symptoms do present, the two most commonly-occurring symptoms include: pain during sexual intercourse, particularly vaginal intercourse (dyspareunia), pain during menstruation (dysmenorrhea).

Diagnosis usually consists of:

* a pelvic exam
* an abdominal ultrasound.

Most of the women do not experience discomfort because of the retroverted uterus, but in case there are complains, the possible treatment may be following:

* **Exercises**:

Women can perform knee-to-chest exercise in order to encourage the uterus to slip back into its proper place. Unfortunately, this tends to be a temporary solution for the problem.

* **Pessaries**: A pessary is a plastic device that is worn inside of the vagina. It helps to support the uterus in the proper position. However, these devices can only be worn in the short term because of the risk for developing a vaginal infection.
* **Surgery**: Surgery for a retroverted uterus is available. Known as the UPLIFT procedure, this procedure works to reposition the uterus by cutting and shortening the ligaments that support it. UPLIFT is a laparoscopic surgery that is performed with the aid of a small camera.
* **Reposition** of the uterus. Uterine displacement Displacement of the uterine body and cervix with respect to the pelvic midline – uterine disposition.

The displacement can be directed:

* anteriorly;
* posteriorly;
* laterally.

At the same time, the organ itself can be mobile or fixed with adhesions to the walls of small pelvis and to the adjacent organs.

Vertical displacement:

* elevated uterus;
* descent of walls;
* prolapse of uterus from vagina.

**Uterine walls descent.**

Weakness of muscles and small pelvis structures, due to which uterus descents below the normal level, but does not protrude from vulvar slit. Uterine walls descent often occurs in women after childbirth. Quite often women confuse this pathology with a tumor or cancer. At the advanced stage it is difficult not to notice cervical prolapse, when uterus goes beyond vulvar slit. This pathology is diagnosed in 25% of women at the age of 3045 years, and at an older age – in every third.

**Etiology**: congenital defects of pelvic organs, connective tissue disorders, affection of small pelvis muscles, their weakening;

**Symptoms**: feeling of pressure in the lower abdomen, dragging pain in vagina, later there may occur pain in sacrum, and sometimes in lower back, frequent or difficult urination, stress urinary incontinence, vaginal discharges sometimes spotting, foreign body sensation in vagina.

**Treatment**: the small degree should prevent from further development of the disease. They should be recommended to avoid heavy lifting and hard physical exercises, carry out prevention of constipations, to wear a bandage, application of uterine rings, to perform special exercises. If the surgical treatment is contraindicated then vaginal tampons and pessaries (rubber rings) are recommended. The surgical treatment most commonly includes the intravaginal surgeries. Uterine prolapse Uterine prolapse is a displacement downwards; upon this, the cervix completely or partially protrudes beyond the genital slit.

**Classification**:

* Partial prolapse – uterine body is located outside the genital slit, only the vaginal part of the cervix comes out the genital slit. Due to elongation of uterine cervix, with partial uterine prolapse, ratio of the body and cervix sizes may be affected.
* Complete prolapse – uterine body and cervix are located below the genital slit. In the case of complete prolapse of the uterus, usually it is not elongated; body and cervix dimensional ratio is preserved.

**Symptoms**.

The three most common conditions associated with this relaxation are cystocele, rectocele, and uterine prolapse. These may occur separately or together. ***Cystocele*** is a herniation of the bladder into the vagina. It occurs when the normal muscle support for the bladder is weakened, and the bladder sags below the uterus. The vaginal wall stretches and bulges downward because of the force of gravity and the pressure from coughing, lifting, or straining at stool. The bladder herniates through the anterior vaginal wall, and a cystocele forms.

The symptoms include an annoying bearing-down sensation, difﬁculty in emptying the bladder, frequency and urgency of urination, and cystitis. Stress incontinence may occur at times of increased abdominal pressure, such as during squatting, straining, coughing, sneezing, laughing, or lifting.

***Rectocele*** is the herniation of the rectum into the vagina. It occurs when the posterior vaginal wall and underlying rectum bulge forward, ultimately protruding through the introitus as the pelvic ﬂoor and perineal muscles are weakened.

The symptoms include discomfort because of the protrusion of the rectum and difﬁculty in defecation. Digital pressure (i.e., splinting) on the bulging posterior wall of the vagina may become necessary for defecation.

Uterine prolapse is the bulging of the uterus into the vagina that occurs when the primary supportive ligaments (i.e., cardinal ligaments) are stretched.

Prolapse is ranked as **ﬁrst, second, or third degree**, depending on how far the uterus protrudes through the introitus.

First-degree prolapse shows some descent, but the cervix has not reached the introitus.

In seconddegree prolapse, the cervix or part of the uterus has passed through the introitus. The entire uterus protrudes through the vaginal opening in third-degree prolapse (i.e., procidentia). Prolapse often is accompanied by perineal relaxation, cystocele, or rectocele. The symptoms associated with uterine prolapse result from irritation of the exposed mucous membranes of the cervix and vagina and the discomfort of the protruding mass. Most of the disorders of pelvic relaxation require surgical correction. These are elective surgeries and usually are deferred until after the childbearing years. The symptoms associated with the disorders often are not severe enough to warrant surgical correction. In other cases, the stress of surgery is contraindicated because of other physical disorders; this is particularly true of older women, in whom many of these disorders occur.

**Treatment:. Non-surgical options**

* Exercise – Special exercises, called Kegel exercises, can help strengthen the pelvic floor muscles. This may be the only treatment needed in mild cases of uterine prolapse. To do Kegel exercises, tighten your pelvic muscles as if you are trying to hold back urine. Hold the muscles tight for a few seconds and then release. Repeat 10 times. You may do these exercises anywhere and at any time (up to four times a day).
* Vaginal pessary – A pessary is a rubber or plastic doughnut-shaped device that fits around or under the lower part of the uterus (cervix), helping to prop up the uterus and hold it in place. A health care provider will fit and insert the pessary, which must be cleaned frequently and removed before sex.
* Estrogen replacement therapy (ERT) – Taking estrogen may help to limit further weakness of the muscles and other connective tissues that support the uterus. However, there are some drawbacks to taking estrogen, such as an increased risk of blood clots, gallbladder disease and breast cancer. The decision to use ERT must be made with your doctor after carefully weighing all of the risks and benefits. 2. Surgical options
* Hysterectomy – Uterine prolapse may be treated by removing the uterus in a surgical procedure called hysterectomy. This may be done through an incision made in the vagina (vaginal hysterectomy) or through the abdomen (abdominal hysterectomy). Hysterectomy is major surgery, and removing the uterus means pregnancy is no longer possible.
* Uterine suspension – This procedure involves putting the uterus back into its normal position. This may be done by reattaching the pelvic ligaments to the lower part of the uterus to hold it in place. Another technique uses a special material that acts like a sling to support the uterus in its proper position. Recent advances include performing this with minimally invasive techniques and laparoscopically (through small band aid sized incisions) that decrease post operative pain and speed recovery. Rotation of the uterus – it’s a rotation of uterus with the cervix around its vertical axis from left to the right or conversely. Torsio uteri – rotation of the uterus without cervix around its vertical axis Inversio uteri - Uterine inversion is a potentially fatal childbirth complication with a maternal survival rate of about 85%. It occurs when the placenta fails to detach from the uterus as it exits, pulls on the inside surface, and turns the organ inside out. It is very rare.