Basic gynecological surgery

Basic gynecological operations can be divided into two groups, depending on where the operation is performed:

1. **Vaginal surgery**
2. **Abdominal surgery**

Furthermore, we can divide operations according to the places where they are performed - vagina]], uterus]], uterine adnexa, etc.

An integral **part of basic gynecological operations** is **preparation** and **pre-operative examination**, or subsequent **post-operative care**.

Preparation

At the beginning of the discovery of the problem, **conservative treatment** is always tried if possible, and surgical treatment is preferred if it is unsuccessful. This is due to the risk of possible complications.

Somatic preparation

The **doctor is always responsible** for any preparation for the procedure. Individual examinations are performed either by a general practitioner or an internist. The **aim of the internal examination** is to **determine the health status** of the patient and to **assess the suitability** for surgery.

Basic examinations include:

- blood test (erythrocytes, blood group, Rh factor]], bleeding]], BWR)
- biochemical examination
- urine test]]
- examination of the circulatory and respiratory system

Surgery can be delayed for several reasons, the main ones being:

- acute respiratory infections, viruses, vein inflammations
- during menstruation or just before it - due to the threat of greater bleeding (greater blood loss)

However, if the patient's life is at risk, the operation is always performed, with the administration of antibiotics parenterally - ensuring a so-called protected coagulum.

Mental preparation

In order to provide a problem-free nursing care after the operation, it is the doctor's task to explain everything necessary about the operation to the patient. The given information includes:

- necessity of surgery, information on length of stay
- possible postoperative difficulties or consequences of the operation

→ the **patient without fear** of the nursing staff can ensure the **efficiency of care**

Preparation for surgery

Individual preparation depends on the severity of the operation:

1. **Small gynecological operations** - trial curettage]], mini-abortions, minor procedures, etc.
2. **Major gynecological surgeries** - listed below, already require more preparation than minor surgeries

Now we will focus on preparation only for major gynecological operations.

- **The day before the operation** - emptying the bowels (last meal at noon, enema in the evening), bathing and shaving the external genitalia
- **Day of operation** - insertion of a **permanent urinary catheter**, ensuring a **protected coagulum** by parenteral antibiotic administration, **medication preparation** - administration of anti-allergic drugs half an hour before the operation to prevent the accumulation of secretions in the bronchi during anesthesia, **bandaging of the lower limbs** to prevent thromboembolic disease]].

Post-operative treatment

Post-operative care has its own set of **rules**, with which the medical staff is properly familiarized. After major operations, the woman is transferred to the ICU, where the doctor and nurse check the pressure, pulse, breathing, etc. If vital functions deteriorate, the woman is transferred to the ARO.
What does *post-operative care* include:

- **Sufficient supply of fluids** through parenteral nutrition (for larger surgical procedures, blood transfusion is required).
- **Pain medications** that are given right after surgery.
- **Concern about intestinal peristalsis** - during abdominal surgery - laparotomy or via the vaginal route, intestinal peristalsis may be depressed for 48-72 hours after the procedure.
- **Prevention of thromboembolic disease** - medicinal support, application of a small dose of heparin, bandage of the lower limbs.
- **Bladder emptying care** - to prevent ascending infection, a permanent urinary catheter is inserted instead of repeated catheterization. However, the most gentle way to empty the bladder is a suprapubic puncture]], which ensures efficient excretion. It is removed when the urinary residue exceeds more than 50 ml.
- **Realimentation** - after bowel surgery, a parenteral liquid diet is prescribed from the second day for a period of 7-10 days. For other operations, the diet is started slowly, starting 14 days after the operation, the diet is already normal.
- **Care of the operated wound** - silicone and silk sutures are removed on 5-6 days, on the abdominal wall on 6-7 days. Cutgut and absorbable sutures are not removed.

Overview of operational performances

Vaginal surgery

Vaginal operations require accurate diagnosis and skill of the operator, as we move in a small operating space. Most of the plastic modifications of the vaginal descent are solved by vaginal operations.

Surgery on external genitalia

- **Excision** (cutting out) - obtaining material for histological examination, removal of limited changes on the vulva or cervix.
- **Dissection** (cutting open) - cut in case of hymen atresia.
- **Extirpatio cystis vestibularis major (glandulae Bartholini)** - surgical removal of a Bartholin's gland cyst.
- **Simple vulvectomy** - removal of external genitalia affected by cancer or dysplastic changes.

Vaginal surgery

- **Enucleation** (extraction of a cyst or myoma) - removal by cutting open the capsule on the cervix/vagina with demarcated formations and then we treat the wound area with stitches.
- **Colporrhapia anterior** - plastic treatment of the anterior vaginal wall.
- **Colpoperioplasty** - plastic surgery of the posterior vaginal wall of the vagina, perineum and muscles.
- **Neoplastica vaginae** - during agenesis of the vagina, we create a new area.
- **Colpocleisis** - closure of the vagina in case of prolapse in older women, it is a replacement of plastic surgery of the anterior and posterior vaginal wall.
- **Vaginofixatio Amreich II. - Richter** - resolves the prolapse of the stump via the vaginal route, it involves the suspension of the stump to the sacrospinosum ligament.

Surgery on the uterus

- **Hysterectomy vaginalis** - removal of the uterus via the vaginal route, usually associated with plastic surgery of the vagina. It is indicated for descent and prolapse of the uterus resulting in urinary incontinence]].
- **Conysatio cervicis** - circular excision of the exocervix with a cone.
- **Amputatio portionis vaginalis uteri** - removal of the vaginal part of the cervix.
- **Curettage of the cervix** - this is the scraping of the cervix with a curette. A fractional curette is also used - scraping of the uterine cavity after sounding and dilation of the cervical canal with metal dilators. In obstetrics, blunt curettes are then used to remove the fetal egg or its remainder in the uterus - the bluntest of them is Bumm's curette.
- **Trachelotomy** - expansion of the cervix where dilatation of the cervix is not enough in the case of a developing myoma.

Abdominal surgery

Abdominal operations are indicated if there are larger adhesions, larger tumors in the body, if a larger operation is expected or if the diagnosis is unclear.

Opening the abdominal cavity is done in two ways:

- A longitudinal incision is made in the midline - **mid-lower laparotomy**.
- Making a transverse cut above the symphysis - *according to Kuster-Rapin*

Surgery on the uterus

- **Enucleation** (myomatis) - this is a conservative operation conducted laparoscopically, when a benign tumor (myoma) is removed.
- **Amputatio corporis uteri supravaginalis** - removal of the uterine body at the point of the isthmus. The supravaginal and vaginal part of the cervix is left.
- **Hysterectomy abdominalis** - removal of the entire uterus including the cervix. If we leave the adnexa here, it is a hysterectomy sine adnexectomy operation. This operation is performed due to benign tumors of the uterus or its injury.
- **Hysterectomia abdominalis cum adnexectomia bilateralii** - removal of the uterus and uterine adnexa. This operation is recommended for malignant growth of the uterus and cervix in the initial stages, or for extensive endometriosis and inflammation.
- **Extended hysterectomy** = panhysterectomy. Here we remove the uterus, adnexa, ligaments around the uterus, including regional nodes and 1/3 of the vagina.

Surgery on the adnexa

- **Salpingectomy** - removal of fallopian tubes. It can be performed as a separate procedure for ectopic pregnancy.
- **Adnexectomy** - removal of the adnex.
- **Ovariectomy** - removal of the ovaries.
- **Ventrosuspensio uteri** - it is a solution to the deviation of the uterus, when we perform its suspension behind the ligamentum teres uteri.
- **Vesicopexis, uretropexis** - surgical adjustment of the angle between the bladder and the urethra by suspension.
- **Ampullolysis tubae** - here we dissect the adhesion in the ampulla of the uterine tube]] and thereby make the fallopian tube open.
- **Neostomy tubae** - cutting the closed fallopian tube during hydrosalping and thus creating a new fallopian tube opening.
- **Resectio cuneiformis ovarii** - wedge-shaped resection of the ovary.
- **Lysis adhesionum** - here we perform disruption of adhesions.
- **Sterilisato chirurgica** - elimination of the fallopian tube]] from its function in the form of ligature or cutting of the fallopian tube.

Surgery in gynecological urology

- **Colpopexis** - this is colpopexis according to Burch, the operation takes place in the rectal space. During the operation, we capture the paraurethrally at the transition point from the bladder to the urethra. We then fix the pubocervical fascia and the front wall of the vagina to the upper edge of the symphysis to the Cooper's ligament on both sides.
- **Urethropexis** - it is urethropexis according to Pereyra-Stamey-Raz, during the operation there is an effort to suspend the urethrovesical junction behind the symphysis. Paraurethrally fixed non-absorbable sutures on both sides are pulled up behind the symphysis and knotted above the fascia.
- **Sling operation** - during this operation, we suspend the neck of the bladder with a sling, thereby suspending and compressing the urethra.

Sacrocolpopexis abdominalis

During this operation, we solve the prolapse of the vaginal stump through the abdominal route. The stump is fixed to a heterologous mesh or vascular prosthesis, which is then fixed to the periosteum of the os sacrum.

Epicystostomia

Epicystostomy, or **suprapubic puncture**, is most often performed after operations to treat stress urinary incontinence. Urine drainage through a catheter will allow the patient to urinate on her own without the need for catheterization.

Outpatient operative techniques and one-day surgery

- **Cryosurgery** - this is the most common treatment for changes on the cervix. Its main advantages are relative painlessness, minimal blood loss and no effect on fertility. However, the main disadvantage is abundant, sticky discharge until menstruation.
- **CO_2 laser** - here it is a quick tissue destruction with a minimal scar after the procedure, but without anesthesia it is painful. Cutting, excision or conization can be performed with a laser beam.
- **LEEP technique** - the principle of this technique is electrodiametry. The loop can be used to excise tissue from the cervix on an outpatient basis and send it for the necessary histology. The cosmetic effect of this method is excellent.
- **Laparoscopic surgical technique** - during visual inspection, a tube and an auxiliary injection with a Veres needle, we introduce special instruments into the abdominal cavity. This technique can be used to perform bipolar coagulation (fallopian tubes, adhesions), appendectomy or ectopic pregnancy surgery. The injury after this procedure is small and recovery is short.
- **TVT** - free vaginal loop - the purpose of the loop is to reintroduce the elastic properties of the paraurethral ligament, i.e. the ligament and the vaginal wall.

Links

Related Articles

- Uterine curettage
- Hysterectomy
- Urinary incontinence
- Malignant tumors in gynecology

References

- KOBILKOVÁ, Jitka, et. al. *Základy gynekologie a porodnictví.* 1.. edition. 2005. 368 pp. ISBN 80-246-1112-0.