Methodical guidelines for students’ self-study to be prepared for practical lesson (seminar) and in class

Academic discipline: Obstetrics and Gynecology
Module № 2: Physiological and pathological progress of pregnancy, labor and postpartum period.
Course: V
Department: Medical

Poltava-2020
1. **Rationale.**

Provision of comprehensive care during intended and unintended pregnancy; maintaining and improving the reproductive health of women by enhancing the quality and efficiency of services provided by the health care system for the prevention of unintended pregnancy; safe surgical procedures on saving or termination of pregnancy and measures to prevent possible complications.

Unintended pregnancy, despite the significant efforts of family planning services to reduce it, remains one of the current problems. Methods of abortion, which are mainly used in Ukraine, are risky and lead to various disorders of women’s reproductive health, including female fertility, subsequent pregnancies and childbirth. There are cases of death of women, which are associated with termination of pregnancy by life-threatening methods.

2. **Objectives:**

1. General concepts of obstetric surgical procedures.
3. Early termination of pregnancy.
4. Late termination of pregnancy.
5. Operations to prepare birth canal.

3. **The basic level of expertise (interdisciplinary integration)**

<table>
<thead>
<tr>
<th>The name of the previous disciplines</th>
<th>Acquired skills</th>
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<tbody>
<tr>
<td>Human Anatomy</td>
<td>The anatomy of the female pelvis</td>
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<tr>
<td>Physiological Obstetrics</td>
<td>Dimensions of the pelvis, the planes of the pelvis, the axis of the pelvis.</td>
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<tr>
<td>Gynecology</td>
<td>Clinical anatomy of the female genital organs. The anatomy of the perineum.</td>
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<tr>
<td>Anesthesiology</td>
<td>Local anesthesiology. General anesthesiology.</td>
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<tr>
<td>Pharmacology</td>
<td>- broad-spectrum antibiotics - anesthetics - uterotonics - blood substitutes and perfusion solutions</td>
</tr>
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</table>

4. **Tasks for students’ self-study to be prepared for the lesson and during the lesson.**
4.1. The list of the major terms, parameters, characteristics to be acquired by a student to be prepared for the lesson:

<table>
<thead>
<tr>
<th>The term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>1. Medical abortion (MA)</td>
<td>Medical (or medication) abortion is a safe and effective method of termination of pregnancy up to 9 weeks of gestation (up to 63 days from the first day of the last menstrual period) with antiprogestagen drugs (mifepristone) and prostaglandins (misoprostol). At the present stage of organization of obstetric and gynecological care in Ukraine, conducting of MA in the period from 7 to 9 weeks of gestation (from 49 to 63 days from the first day of the last menstruation) is optimal in a gynecological unit.</td>
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<tr>
<td>2. Method of vacuum aspiration (VA): manual (MVA) and electric (EVA)</td>
<td>VA is one of the safest surgical methods of abortion up to 12 weeks of gestation. VA is introduced to replace the method of curettage of the walls of the uterine cavity, which is traumatic and life-threatening to women’s health. The advantage of the method is the low percentage of complications, in particular: cervical and uterine injuries, bleeding, infectious complications. VA eliminates the need for routine curettage of the walls of the uterine cavity. The MVA technique is more preferred due to the use of the syringe-aspirator and flexible plastic cannulae, reducing the risk of perforation of the uterine wall and damage to the basal layer of the endometrium.</td>
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<tr>
<td>3. Method of dilatation and curettage (D&amp;C). The procedure of dilatation of the cervix and curettage of the uterine walls.</td>
<td>The D&amp;C method involves cervical dilatation by the Hegar’s dilators or pharmacological drugs, followed by the use of metal curettes to scrape the walls of the uterine cavity. The use of the D&amp;C method is allowed only in the absence of the possibility of making medication abortion or use of MVA or EVA methods.</td>
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</table>

The use of the D&E method is recommended when medication abortion (MA) is not possible.

5. Cesarean section

Cesarean section is a birth operation in which the fetus and afterbirth are removed through the incision of the anterior abdominal wall (laparotomy) and the uterus (hysterotomy).

6. Amniotomy

Amniotomy is artificial incision of the amniotic sac.

7. Perineotomy
   Episiotomy

Surgical incision of the perineum

8. Metreurysis, colpeurysis

Methods of cervical dilatation

4.2. Task-related theoretical issues:

1. Diagnosis of pregnancy.
3. Examinations for the first-trimester termination of pregnancy.
4. Examinations for the second-trimester termination of pregnancy.
5. First-trimester artificial termination of pregnancy (complete 12 weeks of gestation):
   a) medical abortion (MA);
   b) method of vacuum aspiration (VA):
      - manual (MVA)
      - electric (EVA)
   c) method of dilatation and curettage (D&C).
6. Second-trimester artificial termination of pregnancy (12 to 22 weeks of gestation):
   a) medical abortion (MA);
   b) surgical method of D&E (dilatation/evacuation) with prior preparation of the cervix;
   c) other methods of termination of pregnancy.
7. Name the operations to prepare birth canal.
8. Indications for cervical dilatation.
9. Indications for incision of the perineum.
10. Analgesia and anesthesia during the surgeries.
4.3. In-class practical activities (tasks):

1. To collect the anamnestic data, to identify the major pregnancy-related problems and complains of women.
2. To diagnose pregnancy-related uncomfortable states.
3. To make general examination of pregnant women.
4. To make examination of the external genital organs and uterine cervix and estimate their condition.
5. To make vaginal examination and determine the size of the uterus.
6. To make up a plan of the additional examination to diagnose pregnancy.
7. To evaluate the findings of the ultrasonography during early pregnancy.
8. To differentiate pregnancy-related maternal physiological changes with pathological ones on the basis of estimation of the findings of the laboratory tests and other methods of study.
9. To list the signs of pregnancy:
   - presumptive signs;
   - probable signs (Hunter’s sign, Horvitz-Hegar’s sign, Piskacek’s sign, Sniegiriov’s sign);
   - positive signs.
10. To make examination for the first-trimester termination of pregnancy.
11. To make examination for the second-trimester termination of pregnancy.
12. To list the first-trimester methods of artificial termination of pregnancy (12 complete weeks of gestation).
13. To list the second-trimester methods of artificial termination of pregnancy (12 to 22 weeks of gestation).

The scope of the topic:

The diagnosis of pregnancy at an early stage (up to 12 weeks of gestation) is important in the general training of a medical professional, since early detection of pregnancy allows timely diagnosis of obstetric and extragenital pathology and making decision on the feasibility of further carrying of pregnancy. Only such an approach is the key to a favorable outcome of pregnancy for a mother and fetus.

Early pregnancy is determined by a set of anamnestic data, certain subjective and objective signs, gynecological examination, instrumental and laboratory methods of study.

Classification of the obstetric surgical procedures

I. Pregnancy-saving operations.
II. Operations to terminate the early and late pregnancy.
III. Operations to prepare birth canal.

1. Amniotomy:
   – early;
   – timely;
   – late.
2. Dilatation of the cervix:
– manual dilatation of the cervix;
– cervical dilatation by the Hegar’s dilators;
– incisions on the cervix.
3. Incision of the perineum:
– perineotomy;
– episiotomy.

**Operations for correction of the abnormal fetal position**

External cephalic version:
– in pelvic presentation;
– in the transverse and oblique fetal position.

Classical internal podalic version.

**Instrumental delivery**

1. Obstetric forceps:
– outlet forceps;
– cavity forceps.
2. Vacuum extraction of the fetus.
3. Fetal extraction:
– breech extraction;
– total breech extraction.
4. Cesarean section.

**Embryotomy:**

1. Craniotomy.
2. Decapitation.
3. Cleidotomy.
4. Spondylotomy.
5. Evisceration.

**Operations, performed at the third stage of labor and early postpartum period:**

2. Manual inspection (revision) of the uterine cavity.
3. Instrumental revision of the uterine cavity.
4. Suturing of the cervical lacerations and perineal tears.
5. Supravaginal hysterectomy.
6. Hysterectomy.

### I. Pregnancy-saving operations

Isthmic-cervical insufficiency is one of the major reasons of non-carrying of pregnancy. In this pathology gestational sac has no sufficient support on the lower segment of the uterus due to anatomic or functional incompetence of the cervix and isthmus. Consequently, during pregnancy, the cervix becomes shorter: the external and internal os opens. Fetal membranes prolapse into cervical canal, become infected and rupture that leads to pregnancy loss or premature delivery. To prevent this condition surgery is performed during pregnancy.

Surgical treatment of the isthmic-cervical insufficiency in the second trimester.
The treatment presumes cervical cerclage (reinforcement of the cervical ring with nonabsorbable suture material) as either a McDonald’s, Lyubimova’s, Shiradkor’s, Scendi’s procedure.

Shiradkor’s procedure is the imposing a circular suture on the cervix in the area of the internal os after a preliminary incision of the vaginal mucosa and displacement of the bladder upwards.

McDonald’s cerclage is narrowing of the internal os by applying a purse string silk suture at the vaginal vault without the incision of the mucous membrane.

Lyubimova’s technique is the imposing a circular suture (made of copper wire with a polyethylene sheath) in the area of the internal os of the cervix and fixing the suture with interrupted suture at the vaginal vault.

Scendi’s technique is complete suturing of the external os of the cervix. Pre-procedure involved a cut of a thin (0.5 cm) strip of mucous membrane of the cervical canal around the external os and impose interrupted catgut or silk suture. After healing, a scar is formed, which before childbirth is cut with fingers, or using a branch of a forceps or a scalpel.

Prerequisites:
- optimal timing for operation is 12-16 weeks of gestation, though cerclage can be done at later term. If the diagnosis of isthmic-cervical insufficiency had been made before pregnancy the cerclage can be done at the earlier time at 8-10 weeks of gestation;
- bacterioscopic and bacteriologic study of the urine material of the pregnant woman before surgery; sanitization is performed, if necessary;
- tocolytic therapy during the surgery and post-operative period;

Contraindications to surgery:
- maternal: relative: prominent hypertone of the uterus, colpitis; absolute: inability to carry out pregnancy due to poor maternal overall health, intrauterine infection;
- fetal – growth abnormalities.

Postoperative management.
- Bed rest during 1-2 days.
- Intravenous drop infusion of partusisten (0,5 mg in 500 ml isotonic NaCl solution) to lower uterine excitability.
- Shift to peroral partusisten 30 min prior to cessation of intravenous infusion of partusisten is indicated to achieve normal uterine tone.
- Restrict vaginal and bivalve speculum examinations for at least 2-3 weeks.
- Hospitalization of the woman for cerclage removal 2 weeks before the due date of labor. Cerclage is removed at 37-38 weeks of gestation, in amniorrhea or at the beginning of preterm labor.

II. Surgical procedures to terminate early and late pregnancy

Unintended pregnancy, despite the significant efforts of family planning services to reduce it, remains one of the current problems. Methods of abortion, which are mainly used in Ukraine, are risky and lead to various disorders of women’s reproductive health, including female fertility, subsequent pregnancies
and childbirth. There are cases of death of women, which are associated with termination of pregnancy by life-threatening methods.

Unintended pregnancy is the result of a number of circumstances related to personal factors and socio-economic development and the situation in the country, gender relations, level of awareness, availability and quality of information on family planning and the actual use of current methods of contraception.

The diagnosis of pregnancy and examination during the first trimester.

1. General and gynecological examination

Collection of the anamnestic data and making appropriate records into medical documentation:
- complaints of early signs of pregnancy, such as: swollen breasts, food aversions, nausea and vomiting, fatigue and others;
- date of the last menstruation and features of menstrual function;
- consequences of previous pregnancies (number of previous pregnancies and their progress; number, date and features of childbirth and the postpartum period);
- attempts to terminate the current pregnancy (if there were attempts, details);
- illnesses in the history that may affect the procedure of termination of pregnancy (blood clotting disorders and others);
- surgeries in the history made on the organs of the reproductive system (abdominal, vaginal), which can affect the surgical procedure;
- the use of contraceptives in the past and plans for their further use;
- drug allergy;
- findings of gynecological examination.

Terms of the pregnancy (from the first date of the last menstruation).

**Required laboratory and instrumental studies:**
- vaginal microbiocenosis (flora smear);
- blood group and rhesus factor of a primigravida.

**ON INDICATIONS:**
- complete blood count;
- RW blood test;
- blood group and rhesus factor;
- HIV blood test (according to voluntary consent after pre-test consultation);
- uterine cervix cytology (during the first visit in the current year);
- in the occurrence of extragenital pathology examination is made according to the appropriate Protocol;
- the level of blood hCG (if ectopic pregnancy or stillbirth is suspected);
- ultrasonography (if it is necessary to confirm the term of pregnancy, if ectopic or molar pregnancy is suspected).

**DIAGNOSIS / EXAMINATION**

**GENERAL EXAMINATION:**
Physical appearance (color of complexion). Pulse rate, blood pressure, body temperature measurement.

**GYNECOLOGICAL EXAMINATION:**
Examination is made in disposable sterile gloves.
External genital examination. Perineal examination to detect signs of STDs (ulcers, condylomas, abnormal vaginal discharges).

Bivalve vaginal speculum examination to detect abnormal vaginal discharges or deformities (in case of detection of signs of STDs or inflammatory disease treatment is provided according to the approved protocol).

Evaluation of the signs of pregnancy (soft cyanotic uterine cervix, enlarged, soft uterus).

Position of the uterus (ante- or retroflexio, ante- or retroversio).

Correspondence of the uterus to the term of pregnancy (if the uterus is larger than expected, there may be a multiple pregnancy, hydatidiform mole or uterine leiomyoma. If the uterus is smaller than expected, it can be assumed that pregnancy is not occurred, there was a miscarriage or ectopic pregnancy).

If more than 6 weeks have passed since the date of the last menstrual period, there is a suspicion of pregnancy, but the uterus is not enlarged in size, perform ultrasound, measure the blood hCG level or refer the woman to medical facility of the higher level to clarify the diagnosis.

In case of ectopic pregnancy procedures are to be performed according to the current Protocol.

**The technique for early termination of pregnancy (up to 12 weeks of gestation).**

The safest methods are medical abortion and vacuum aspiration (manual or electric). Instrumental (cervical dilation and curettage) termination is permissible only in the absence of the possibility of less traumatic methods.

The patient must sign an informed consent to the method of abortion and analgesia, as well as read the notes for the patient, containing information about the rules of conduct, possible complications, indications for urgent help and the choice of contraceptive method in the future.

Additional information is provided:
- oral medication administration is swallowing of tablets;
- transbuccal medication administration is holding tablets for 30 minutes between the cheek and gums before swallowing;
- sublingual medication administration is placing of tablets under the tongue until complete dissolution;
- vaginal administration of misoprostol is performed by a physician.

**Indication:** woman’s intention to terminate pregnancy; medical, social.

**Contraindications for the procedure:**
- inability of the patient to adequately perceive information and follow medical prescriptions and recommendations;
- absence of data to verify pregnancy;
- ectopic pregnancy or suspicion of it;
- chronic renal and hepatic failure;
- adrenal insufficiency;
- long-term treatment with corticosteroids;
- exacerbated bronchial asthma;
- severe CVD at the stage of subcompensation and decompensation;
- moderate and severe anemia (Hb level lower than 90 g/l);
- porphyria;
- blood diseases that threaten bleeding;
- anticoagulant therapy and disorders of the hemostasis;
- neoplasms of the uterine appendages;
- allergic reactions to mifepristone and misoprostol in the past medical history;
- acute inflammatory diseases of the pelvic organs;
- acute inflammatory diseases of other localization.

Abortion is performed after treatment.
Uterine scar after surgery is not a contraindication.

The regimen of medication administration:

<table>
<thead>
<tr>
<th>MEDICATIONS, DOSE</th>
<th>CONDITIONS FOR ADMINISTRATION/PROCEDURE</th>
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<tbody>
<tr>
<td>Mifepristone (in a dose according to the approved instructions of the manufacturer for the use of this drug)</td>
<td>Medication is administered in the presence of an obstetrician-gynecologist.</td>
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</table>
| Within 24-48 hours:  
- misoprostol 400 mcg orally, transbuccally or sublingually during pregnancy up to complete 7 weeks of gestation (up to 49 days from the first day of the last menstrual period)  
or  
- lysoprostol 800 mcg vaginally during pregnancy up to complete 9 weeks of gestation (up to 63 days from the first day of the last menstrual period) | Medication is administered under supervision of an obstetrician-gynecologist of by herself at home. |

Up to 7 weeks of pregnancy within 24-48 hours after administration of mifepristone, misoprostol is administered orally, buccally, sublingually or even vaginally, at a dose of 400 mcg, which can be repeated after 3 hours.

Between 7 and 9 weeks of pregnancy within 24-48 hours after oral administration of mifepristone, misoprostol should be administered at a dose of 800 mcg vaginally, buccally or sublingually, and, if necessary, additional dose of 400 mcg is administered after 3-4 hours.

Between 9 and 12 weeks of pregnancy, within 24-48 hours after oral administration of mifepristone, misoprostol should be administered at a dose of 800 mcg vaginally, buccally or sublingually.

After 12 weeks of gestation, within 24-48 hours after oral administration of mifepristone, the doses of misoprostol should be re-administered.

2. Method of vacuum aspiration (VA):
- manual (MVA);
- electric (EVA).

VA is one of the safest surgical methods of abortion up to 12 weeks of gestation.

VA is introduced to replace the method of curettage, which is traumatic and life-threatening to women’s health.

The advantage of the method is the low percentage of complications, in particular: cervical and uterine injuries, bleeding, infectious complications.

VA eliminates the need for routine curettage.

Antibiotic prophylaxis is mandatory when the VA method of termination of pregnancy is used.

**Types of VA**: manual (MVA) and electric (EVA).
Contraindications for the procedure:
- absence of data to verify pregnancy;
- ectopic pregnancy or suspicion of it;
- acute inflammatory diseases of the pelvic organs;
- acute inflammatory diseases of other localization;
- acute infectious diseases.
Abortion is performed after treatment.

Manual vacuum aspiration (MVA)

Technique for MVA procedure:
- perform bimanual examination to determine the size and position of the uterus;
- prepare the syringe and cannula according to the size of the uterus. It is desirable to have extra syringe-aspirator and several cannulae for the possibility of replacement if necessary (loss of ability to create vacuum, etc.);
- ask the patient to relax (if local anesthesia is used), carefully insert warm Sims’ vaginal speculum and expose the cervix, which should be located between the valves of the speculum;
- clean the uterine cervix with antiseptic-soaked sponge;
- fix the cervix with tenaculum forceps in the projection of “12 o’clock” and carefully withdraw it;
- perform paracervical blockade in case the patient chooses local anesthesia;
- carefully, without applying force, insert the cannula into the uterus, in case of impossibility use the Hegar’s dilators for gradual opening of the cervix;
- after introduction of the cannula into the uterine cavity it is necessary to carry out aspiration of tissues by the syringe-aspirator, carrying out careful movements “in-and-out” not forcefully to prevent perforation of the uterus;

Important notes:
- cannula is located in the uterine cavity during the procedure. It is not necessary to carry out scraping using cannula as the endometrium separates independently under the influence of negative pressure;
- strong uterine contractions and a feeling of compression of the cannula indicate uterine emptying. At this point, the aspiration process is complicated and bubbles and red foam appear in the cannula. Roughness sensation in the uterine cavity indicates the completion of the procedure. The finishing contents of the aspirate consist of drops of pure blood;
- it is necessary to complete the aspiration and only then remove the cannula from the uterine cavity;
- it is strictly forbidden to “check” the uterine cavity with a curette;
- removed tissues of the fertilized egg must be examined to confirm complete aspiration or signs of hydatidiform mole;
- in case of suspicion of mole pregnancy, the removed tissues should be sent for histological examination. In the absence of remnants of the fertilized egg, make sure there are no errors during the procedure, as well as to exclude doubling of the uterus, perforation and ectopic pregnancy.

Visual inspection of the removed tissues after each procedure is mandatory for the MVA.

The MVA involves the use of a portable plastic aspirator with a volume of 60 ml (or syringe), with one or two valves that create a vacuum of 55 mm Hg before the procedure.
Plastic disposable or re-usable cannulae of different diameters from 4 to 12 mm are supplied to a syringe-aspirator on condition of possibility of their washing, high-stage disinfection and sterilization.

Matching uterine and cannula sizes for MVA:

<table>
<thead>
<tr>
<th>Uterine size in weeks</th>
<th>Size of cannulae (mm)</th>
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<tr>
<td>5-6</td>
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<td>7-8</td>
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<td>9-10</td>
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<td>10-12</td>
<td>9-12</td>
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</tbody>
</table>

The syringe-aspirator makes it possible to inspect the removed tissues after the procedure and eliminates the need for additional intervention.

The MVA technique eliminates the need for routine curettage.

After the procedure of artificial termination of pregnancy by EVA and MVA without complications, the patient must be under the supervision of medical staff for at least 2 hours.

MVA advantages:
- atraumatic method, due to the use of syringe-aspirator and flexible plastic cannulae;
- reducing the risk of perforation of the uterine wall and damage to the basal layer of the endometrium;
- reducing the risk of trauma to the cervix, which leads to the development of cervical insufficiency, as the size of the cannulae is selected depending on the degree of opening of the cervical canal. At the same time, in the period of pregnancy up to 7-8 weeks there is no need to dilate the cervix with Hegar’s dilators;
- the ability to visualize and control the removed tissues (fertilized egg, chorionic tissue), as the removed tissues are collected in an individual container;
- reduction of the risk of infection due to a single use of the cannula and non-contact method of the procedure (there is no need to remove the cannula from the uterine cavity before the end of the procedure);
- reduction of costs for the purchase of equipment due to the possibility of multiple use (syringe-aspirator).

Electric vacuum aspiration (EVA)

EVA technique does not differ from the MVA technique, but involves the use of an electric vacuum pump at a negative pressure of up to 0.8-1.0 atmospheres.

The EVA technique eliminates the need for routine curettage.

Mandatory for EVA is the inspection of removed tissues after each procedure.

The procedure of dilatation of the cervix and curettage of the uterine walls.

The D&C method involves cervical dilatation by the Hegar’s dilators or pharmacological drugs, followed by the use of metal curettes to scrape the walls of the uterine cavity.

The use of the D&C method is allowed only in the absence of the possibility of making medication abortion or use of MVA or EVA methods.

Antibiotic prophylaxis is mandatory when D&C method of artificial termination of unintended pregnancy is used.

Contraindications for the D&C procedure:
- ectopic pregnancy or suspicion of it;
- acute inflammatory diseases of other localization;
- acute infectious diseases.
Abortion is performed after treatment.

**Pre-procedure:**

The uterine cervix should be prepared prior the abortion by dilatation and curettage in all cases.

The priority groups are:
- primigravidae;
- women who experienced previous surgery or interventions on the uterine cervix;
- teenage girls who are at high risk of injury and bleeding.

**The uterine cervix is prepared by one of the following methods:**
- vaginal administration of 400 mcg misoprostol 3-4 hours before surgery;
- oral administration of 400 mcg misoprostol 3-4 hours before surgery;
- oral administration of 200 mg mifepristone 36 hours before surgery;
- introduction of laminaria or other similar hydrophilic dilator of the cervix within 12-24 hours before surgery in a hospital.

**Undertaking procedure for D&C:**

**Stages of the operation:**
- empty the bladder;
- bimanual examination;
- cleansing of the external genital organs with iodine;
- insert of Sims’ speculum and elevator into the vagina and exposure of the uterine cervix;
- cleansing of the vagina and cervix with 3% iodine solution;
- grasp the cervix by the anterior lip with ball forceps;
- remove the elevator;
- a physician holds the cervix with ball forceps and passes the lower valve of the speculum to the nurse, who assists during the operation;
- sounding of the uterine cavity in order to determine the patency and direction of the cervical canal, the length and shape of the uterine cavity;
- dilatation of the cervical canal with Hegar’s dilators from № 4-6 to № 12-13 (the number of the dilator is equal to its diameter in millimeters);
- destruction and removal of the fertilized egg with a curette № 6, fenestrated forceps;
- control scraping of the walls of the uterine cavity and tubular corners with curettes № 4 and 2;
- making sure that the fertilized egg and decidual membrane are completely removed, the uterine contracted well, no bleeding, ball forceps are removed from the cervix;
- cleansing of the cervix with 3% iodine;
- the speculum is removed from the vagina;
- if necessary (absence of elements of the ovum in the scraping, suspicion of a malignant process) the material is sent for histological study.

Make sure there is no bleeding from the uterus and cervix at the site of application of forceps (in case of bleeding, press with tampons for a few minutes).
After the operation, it is necessary to immediately inspect the remains of the fertilized egg to match the gestational age and to exclude the possibility of ectopic pregnancy.

After uncomplicated D&C procedure the patient should be under the supervision of medical staff for at least 2 hours.

After termination of the first pregnancy (if the gestation period is more than 6 weeks), women with rhesus-negative blood type should be immunized with anti-rhesus immunoglobulin according to the appropriate technique.

**The second-trimester artificial termination of pregnancy**

Termination of pregnancy is carried out in accordance with the list of reasons for artificial abortion (12 to 22 weeks of gestation), approved by the Cabinet of Ministers of Ukraine as of 15.02.2006 №144 “On the implementation of the Article 281 of the Civil Code of Ukraine”.

**The second-trimester artificial termination of pregnancy (12 to 22 weeks of gestation)**

If a pregnant woman has medical indications that are not listed in the List, but in which the continuation of pregnancy and childbirth pose a threat to her health or life (or critical state), abortion is carried out on the basis of consultation of the physicians.

Artificial termination of pregnancy in 12 to 22 weeks, on the reasons specified in the List of non-medical nature is carried out at the request of the pregnant woman or her legal representatives (in case of minor, incapacity of the person) and provided documents confirming these circumstances:

- the age of the pregnant woman is less than 15 years;
- the age of the pregnant woman is more than 45 years;
- pregnancy resulting from rape or disability occurred during this pregnancy.

After establishing the indications for termination of pregnancy in the II trimester and examination, the patient is referred to the Commission of the Department of Health.

Artificial termination of pregnancy in 12 to 22 weeks is carried out in the inpatient department of the III level and is performed by an obstetrician-gynecologist of the first or higher qualification category, who has been trained and has the skills.

The attending physician together with the Head of the department determines the optimal method of abortion for this patient.

According to the WHO, the safest and most effective methods of abortion in the second trimester are: medical (MA) and surgical D&E (dilation and evacuation) with preliminary procedure to prepare the cervix.

If it is impossible to terminate a pregnancy, the period of which is from 12 to 22 weeks, by medication abortion or VA, other technique may be used.

In the case of congenital malformations of the fetus incompatible with life, a pathological autopsy of the fetus is mandatory.

In artificial termination of pregnancy in the II trimester antibiotic prophylaxis is mandatory; antibiotic therapy, if necessary.
After completion of the procedure (operation) of abortion in the II trimester without complications, the patient should be under the supervision of medical staff for at least 24 hours.

**Second-trimester medication abortion**

1. **Contraindications:**
   - inability of the patient to adequately perceive information and follow medical prescriptions and recommendations;
   - absence of data to verify pregnancy;
   - ectopic pregnancy or suspicion of it;
   - chronic renal and hepatic failure;
   - adrenal insufficiency;
   - long-term treatment with corticosteroids;
   - exacerbated bronchial asthma;
   - severe CVD at the stage of subcompensation and decompensation;
   - moderate and severe anemia (Hb level lower than 90 g/l);
   - porphyria;
   - blood diseases that threaten bleeding;
   - anticoagulant therapy and disorders of the hemostasis system;
   - tumors of the uterine appendages;
   - allergic reactions to mifepristone and misoprostol in the past medical history;
   - acute inflammatory diseases of the pelvic organs;
   - acute inflammatory diseases of other localization.

Abortion is performed after treatment.

Uterine scar after surgery is not a contraindication.

2. **The regimen of medication administration:**

<table>
<thead>
<tr>
<th>Medications, dose</th>
<th>Conditions for administration/procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mifepristone (in a dose according to the approved instructions of the manufacturer for the use of this drug). Within 36-48 hours, 400 mcg misoprostol is administered vaginally, followed by oral administration of 400 mcg misoprostol every 3 hours, the maximum number of doses is 5.</td>
<td>Medication is administered per os in the presence of an obstetrician-gynecologist with follow up supervision. Medication is administered under supervision of an obstetrician-gynecologist in the hospital.</td>
</tr>
<tr>
<td>2 400 mcg misoprostol is administered orally every 3 hours, the maximum number of doses is 5 (if administration of mifepristone is not possible).</td>
<td>Medication is administered under supervision of an obstetrician-gynecologist in the hospital.</td>
</tr>
</tbody>
</table>

According to WHO recommendations, mifepristone is administered at a dose 200 mg.
3. Instrumental revision of the walls of the uterine cavity (curettage) after MA.

Routine instrumental revision of the walls of the uterine cavity (curettage) after MA is not required.

Curettage is performed in the presence of clinical signs that indicate incomplete abortion.

In the absence of signs of separation and expulsion of placenta and the presence of conditions waiting tactics for 6 hours is possible.

Dilatation and evacuation (D&E) surgical procedure in the II trimester.

**Contraindications for the D&E procedure:**
- acute inflammatory diseases of the pelvic organs;
- acute inflammatory diseases of other localization;
- acute infectious diseases.

Abortion is performed after treatment.

In the presence of other contraindications (diseases, conditions in which abortion is life-threatening or causes significant harm to health), issues are resolved individually in each case.

**Pre-procedure:**

The uterine cervix should be prepared by one of the following methods prior the D&E procedure:
- vaginal administration of 400 mcg misoprostol 3 hours before surgery;
- sublingual administration of 400 mcg misoprostol 3 hours before surgery;
- introduction of laminaria or other similar hydrophilic dilator of the cervix 12-24 hours before surgery in a hospital.

**Undertaking procedure.**

Ask the patient to relax if she is conscious. Insert warm sterile Sims’ speculum of adequate size into the vagina.

Open the valves of the speculum for exposure and place the cervix between them.

Cleanse the cervix three times with antiseptic-soaked sponge.

Fix the cervix with tenaculum forceps in the projection of 12 hours.

Perform paracervical blockade in case the patient chooses local anesthesia.

Dilate the uterine cervix to more than the size of the cannula. Carefully insert the cannula into the uterine cavity. Attach the cannula to the vacuum aspirator and remove the tissues of the fertilized egg from the uterine cavity. If necessary, use the fenestrated clamp to remove large pieces of fertilized egg tissue from the uterine cavity.

Perform careful curettage of the walls of the uterine cavity to remove the remnants of the tissues of the fertilized egg. It is not necessary to scrape excessively as it promotes emergence of synechiae!

Perform vacuum aspiration of the remains of the conception product to ensure the operation was complete.

If necessary, introduce medications that contract the uterus to reduce bleeding.

Inspect the tissues removed from the uterine cavity (make sure that all tissues have been removed).
Evaluate the woman’s general condition, make sure that the uterus has contracted and no bleeding occurred.

During and after the procedure of abortion it is possible to make ultrasonography to monitor the operation and eliminate tissue residues.

**Other methods of termination of pregnancy in the II trimester.**

One of the methods may be administration of endocervical gel with dinoprostone (to prepare the uterine cervix), followed by induction of contractile activity of the uterus by intravenous administration of dinoprostone solution according to the method of application and doses.

**Minor cesarean section.**

**Anesthesia**

Endotracheal anesthesia.

**Undertaking procedure.**

1. Washing of the site of operation with antiseptic solution.
2. Incision of the abdominal wall layer-by-layer: skin, subcutaneous tissue, aponeurosis, muscles, peritoneum.
3. Incision of the bladder-uterine fold, obtuse elevation of the bladder.
4. Incision of the uterus in the lower segment or corporally.
5. Exposure of the fetus, its separation from the mother (the umbilical cord is cut between the clamps).
6. Removal of the placenta by pulling on the umbilical cord, curettage of the uterine wall, dilation of the cervical canal.
7. Suturing of the incision on the uterus with a two-layer suture, peritonisation by the vesicouterine fold.
8. Toilet of the abdominal cavity, control of hemostasis.
9. Revision of the pelvic organs.
10. Additional surgical interventions on indications.
11. Count of the tampons and instruments.
12. Layered suturing of the abdominal wall.

After termination of the first pregnancy, women with rhesus-negative blood type should be immunized with anti-rhesus immunoglobulin according to the appropriate technique.

| Advantages and disadvantages of different methods of termination of pregnancy |
|----------------------------------|------------------|
| **Medical abortion**             | **Surgical abortion** |
| Usually non-invasive procedure    | Invasive procedure |
| Anesthesia is not usually required| Anesthesia or sedation is required |
| Two or more visits to a doctor is | One visit to a doctor is usually required |
| required                          |                   |
| Can lasts for days or weeks until | Is finished in the expected period |
| finishing                         |                   |
| Can be possible in early pregnancy (up to 7 weeks) | Can be perform both in I and II trimesters of gestation |
| High efficacy (95%)               | High efficacy (99%) |
The List of the reasons allowing artificial termination of pregnancy from 12 to 22 weeks (approved by the resolution of the Cabinet of Ministers of Ukraine as of 15 February, 2006 №144)

<table>
<thead>
<tr>
<th>International Classification of Diseases and Related Health Problems rubrics and sub rubrics (10th Revision (ICD-10))</th>
<th>Reason</th>
<th>The form, stage, severity of the disease</th>
<th>Conditions of illness experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<tr>
<td>Certain infectious and parasitic diseases</td>
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<tr>
<td>B06</td>
<td>Rubella</td>
<td>-</td>
<td>is experienced during pregnancy</td>
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<tr>
<td>B20-B24</td>
<td>HIV disease</td>
<td>IV stage of HIV-infection</td>
<td>-</td>
</tr>
<tr>
<td>A15,A16, A18, A19, Tuberculosis A19</td>
<td></td>
<td>severe forms: disseminated, progressing, chemoresistant, with severe complications</td>
<td>(except for tuberculosis of nervous system and meninges in acute stage; miliary tuberculosis)</td>
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<td>C00-C97</td>
<td></td>
<td>Malignant neoplasms</td>
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<tr>
<td>Endocrine, nutritional and metabolic diseases</td>
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<tr>
<td>E10</td>
<td>Diabetes mellitus</td>
<td>severe form</td>
<td>progression of diabetic nephropathy (uncontrolled hypertension, renal failure)</td>
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<tr>
<td>E21</td>
<td>Hyperparathyroidism and other disorders of parathyroid gland</td>
<td>Severe form</td>
<td>-</td>
</tr>
<tr>
<td>E26</td>
<td>Hyperaldosteronism</td>
<td>-</td>
<td>-</td>
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<tr>
<td>E70-E85</td>
<td>Birth of children with confirmed diagnosis of lethal, sublethal diseases, as well as those that are not amenable or prenatal confirmation of the diagnosis in the fetus using invasive studies;</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
hereditary diseases and heterozygous carriers of mutant genes that cause hereditary diseases difficult to correct and/or are accompanied by severe mental disorders X-linked inheritance in case of impossibility of prenatal confirmation of the diagnosis and establishment of the male gender of the fetus

Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>D60</td>
<td>Aplastic anaemia</td>
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<td></td>
<td></td>
<td>Mental and behavioral disorders</td>
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<tr>
<td>F01</td>
<td>Vascular dementia</td>
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<tr>
<td>F03</td>
<td>Unspecified dementia</td>
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<tr>
<td>F04</td>
<td>Organic amnesic syndrome, not induced by alcohol and other psychoactive substances</td>
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<tr>
<td>F06</td>
<td>Other mental disorders due to brain damage and dysfunction and to physical disease</td>
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<tr>
<td>F07</td>
<td>Personality and behavioral disorders due to brain disease, damage and dysfunction</td>
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<tr>
<td>F09</td>
<td>Unspecified organic or symptomatic mental disorder</td>
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<tr>
<td>F10-F19</td>
<td>Mental and behavioral disorders due to psychoactive substance use</td>
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<tr>
<td>F20</td>
<td>Schizophrenia</td>
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<tr>
<td>F22</td>
<td>Persistent delusional</td>
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<tr>
<td>Code</td>
<td>Condition</td>
<td>Description</td>
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<tr>
<td>-------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>F25</td>
<td>Schizoaffective disorders</td>
<td>prominent cognitive dysfunction, impaired perception, thinking, emotional and volitional sphere and social maladaptation</td>
</tr>
<tr>
<td>F28</td>
<td>Other nonorganic psychotic disorders</td>
<td></td>
</tr>
<tr>
<td>F29</td>
<td>Unspecified nonorganic psychosis</td>
<td></td>
</tr>
<tr>
<td>F60-F69</td>
<td>Disorders of adult personality and behaviour</td>
<td>prominent social maladaptation</td>
</tr>
<tr>
<td>F70-F79</td>
<td>Mental retardation</td>
<td></td>
</tr>
</tbody>
</table>

**Diseases of the nervous system**

<table>
<thead>
<tr>
<th>Code</th>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G30</td>
<td>Alzheimer disease</td>
<td></td>
</tr>
<tr>
<td>G37</td>
<td>Other demyelinating diseases of central nervous system</td>
<td></td>
</tr>
<tr>
<td>G71-C72</td>
<td>Primary disorders of muscles and other myopathies</td>
<td></td>
</tr>
</tbody>
</table>

**Diseases of the circulatory system**

<table>
<thead>
<tr>
<th>Code</th>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>105-108,134-136</td>
<td>Rheumatic mitral, aortic, tricuspid valve disorders</td>
<td>IV-V stage</td>
</tr>
<tr>
<td>110-113</td>
<td>Hypertensive diseases</td>
<td>III stage</td>
</tr>
<tr>
<td>115</td>
<td>Secondary hypertension</td>
<td>severe stage uncontrolled hypertension</td>
</tr>
<tr>
<td>125</td>
<td>Chronic ischemic heart disease</td>
<td>except for acute forms, when intensive treatment is indicated, including invasive interventions</td>
</tr>
<tr>
<td>127.0</td>
<td>Primary pulmonary hypertension</td>
<td></td>
</tr>
<tr>
<td>127.1</td>
<td>Kyphoscoliotic heart disease</td>
<td>severe form</td>
</tr>
<tr>
<td>Code</td>
<td>Condition</td>
<td>Details</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>127.9</td>
<td>Cor pulmonale (chronic) NOS with stage IIb-III heart failure</td>
<td></td>
</tr>
<tr>
<td>131</td>
<td>Other diseases of pericardium with stage IIb-III heart failure</td>
<td>refusal of the pregnant woman from surgical treatment</td>
</tr>
<tr>
<td>142.0</td>
<td>Dilated cardiomyopathy with an emission fraction of less than 40%</td>
<td></td>
</tr>
<tr>
<td>142.1</td>
<td>Obstructive hypertrophic cardiomyopathy obstructive form</td>
<td>progression of decompensation and ineffectiveness of treatment</td>
</tr>
<tr>
<td>142.3-142.9</td>
<td>Cardiomyopathy severe form</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>Heart failure stage IIb-III (class IV) regardless of the underlying diagnosis</td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>Aortic aneurysm and dissection</td>
<td>only simultaneously or after cardiac surgery</td>
</tr>
<tr>
<td>Q20-Q28</td>
<td>Congenital malformations of the circulatory system stage IIb-III of heart failure; cyanosis; high pulmonary hypertension</td>
<td>impossibility of surgical correction at progressive deterioration of a condition at inefficiency of the carried-out therapy</td>
</tr>
<tr>
<td>J44.8</td>
<td>Other specified chronic obstructive pulmonary disease Stage III-IV</td>
<td></td>
</tr>
<tr>
<td>J96.1</td>
<td>Chronic respiratory failure Stage III regardless of the underlying diagnosis</td>
<td></td>
</tr>
<tr>
<td>K22.2</td>
<td>Oesophageal obstruction bougienage failed</td>
<td></td>
</tr>
<tr>
<td>K72.9</td>
<td>Hepatic failure, unspecified</td>
<td></td>
</tr>
<tr>
<td>K74</td>
<td>Fibrosis and cirrhosis of liver</td>
<td></td>
</tr>
<tr>
<td>K76.6</td>
<td>Portal hypertension in the case of recurrent bleeding from varicose veins of the cardia</td>
<td></td>
</tr>
<tr>
<td>N13.0-13.3</td>
<td>Hydronephrosis bilateral, single kidney, congenital</td>
<td></td>
</tr>
<tr>
<td>N17</td>
<td>Acute renal failure</td>
<td>regardless of the causes</td>
</tr>
<tr>
<td>N18</td>
<td>Chronic kidney disease</td>
<td></td>
</tr>
</tbody>
</table>
III. Operations to prepare birth canal

Amniotomy

Amniotomy is artificial rupture of the amniotic sac. Amniotomy is distinguished as:

a) early amniotomy, performed in the first stage of labor in uterine dilation up to 7 cm;
b) timely amniotomy, performed in uterine dilation of 7 cm and more;
c) late amniotomy, performed after complete uterine dilation and failure to amniotic fluid release.

**Indications for amniotomy:**

1. Late rupture of the amniotic sac due to very firm membranes;
2. Flat amniotic sac, since it does not perform its function of a hydraulic wedge, inhibits labor progress and can cause premature placental abruption;
3. Uterine inertia (performing an amniotomy increases the effectiveness of labor stimulation);
4. Polyhydramnios (overstretched uterus leads to weak labor activity);
5. Placenta praevia (amniotomy stops further placental abruption);
6. Delayed birth of the second twin;
7. Severe forms of the late gestosis (amniotomy leads to a decrease of intrauterine pressure and accelerates the labor process, which is important for normalization of hemodynamics).

8. Application of obstetric forceps is used in rupture of the amniotic sac.

**Undertaking procedure:**

After cleansing the external genitalia with antiseptic solutions the forefinger and middle finger are introduced into vagina to rupture the membranes of the tense amniotic sac due to uterine contractions.

If such technique was ineffective the sac is ruptured by the tenaculum forceps or dressing forceps.

The procedure is made under the eye control (bivalve vaginal speculum are inserted into vagina) or fingers (the instrument is inserted lengthwise the fingers and rupture the membranes).

Hold in the waters flow by the examining hand to prevent the release of small parts of the fetus.

**Cervical dilatation**

Indications for mechanical cervical dilatation:
- maternal diseases during pregnancy that require its termination.
- cervical lesions, obstructed its dilatation:
  a) cervical rigidity;
  b) scarred cervical stenosis;
  c) vaginofixatio uteri: after this operation the cervix is declined posteriorly, between the uterine body and the cervix there is a flexure, which obstructs the normal dilatation of the cervical canal.

Complications during the opening: cervical stenosis, leading to rupture of the cervix

**Prerequisites for operations:**
- cervical smoothing;
- cervical dilation at least to 2 cm.

**Manual cervical dilatation**

**Undertaking procedure.**

After cleansing the external genitalia with antiseptic solutions one hand is introduced into the vagina and two fingers are placed into the cervix, sliding apart the edges of the cervical canal. Upon dilatation enter the third, fourth, fifth finger. Subsequently, twisting movements are performed to enter the hand into the uterine cavity.

**Cervical dilatation by the Hegar's dilators**

**Undertaking procedure.**

After cleansing of the external genitalia with antiseptic solutions the cervix is exposed using the wide bivalve vaginal speculum and elevate, the edges are fixed by the tenaculum forceps. The midwife takes the tenaculum forceps in the left hand and inserts the uterine sound into the cervical canal. After sounding, the cervical canal is dilated by the Hegar’s dilators.

**Cervical incisions**

**Undertaking procedure.**

The cervix is exposed by the wide bivalve vaginal speculum and elevated, fixing the edges by the tenaculum forceps. Curved blunt scissors are approached to the uterine os, controlled by two fingers. One branch is inserted into the cervical canal and the cervix is being incised not greater than 1 cm in the direction of 10-, 13-, 19-hours clockwise.
It is not advisable to incise the cervix on the midline due to the possibility to injure urinary bladder, uterine arteries or incision of the extrauterine space in spontaneous extension of the tear under the pressure of the presenting part during labor.

Metreuryis and colpeuryis
The cervical canal can be dilated by inserting a sterile rubber balloon into the uterine cavity (metreuryis) or into the posterior vault of the vagina (colpeuryis), followed by filling it with fluid. This promotes reflex enhancement of the contractile activity of the uterus and accelerates the opening of the cervix, as well as prevents premature discharge of amniotic fluid. To prevent infection, the balloon should not be in the birth canal for more than 4-6 hours.

Contraindications for metreuryis and colpeuryis are severe forms of late gestoses, neoplasms in the cervix and vagina, as well as the presence of infectious process in the birth canal. They are often complicated by the occurrence of uncoordinated or excessive labor activity, contributing to fetal abnormal position and presentation. Currently, such operations are almost never used.

Surgical incision of the perineum
Episio- and perineotomy belong to the group of operations in which perineal incision is performed. Such operations are performed to prevent perineal tears and injuries to the fetal head, as well as to reduce the second period of labor.

Indications for incision of the perineum
1. Threatened perineum tear or signs of the onset of tear (smooth edges of the cut wound are healed up faster than lacerated one);
2. Fetal distress;
3. Weak labor activity in external cephalic version in pelvic presentation.
4. Preterm delivery (perineotomy reduces the compression of the head by the perineal muscles).
5. Perineal abnormalities (high perineum, scarred perineum, rigid perineum).

Undertaking procedure.
The external genital organs are cleansed by 5% iodine solution. The branch of blunt scissors is inserted between the presenting part and perineal wall on the incision line in between the pushing. The incision is made on the height of the pushing. The length and depth of the incision should not be less than 2 cm.

In episiotomy the incision is made 2-3 cm higher the posterior comissure to the tuber of the ischium.

In perineotomy the incision is made from the posterior comissure to the anus. Its length should not be greater 3 – 3.5 cm, since the longer incision can transform into the third-degree perinel tear.

Material for self-testing:

A. Tasks for self-testing:
1. Classification of obstetric surgical procedures.
2. Name the pregnancy-saving surgical operations.
3. Methods of the artificial termination of pregnancy in I trimester (complete 12 weeks).
4. Methods of the artificial termination of pregnancy in II trimester (in 12 to 22 weeks).
5. Name the operations to prepare birth canal.
6. Name the indications for amniotomy.
7. Name the indications for surgical incision of the perineum.

**B. Clinical situations for self-testing:**

1. A 22-year-old female patient complains of missed periods for 3 weeks, nausea, loss of appetite, breast swelling and tension.
   - What is the preliminary diagnosis?
   - What additional examination should be made to establish the final diagnosis?
   
   Preliminary diagnosis:
   5 weeks pregnancy

   examination by gynecologist is required
   blood hCG test
   ultrasonography

2. A 27-year-old female patient presented to an antenatal clinic regarding missed periods for 3 weeks. Gynecological examination revealed cyanotic vaginal wall, cervix; the uterus was enlarged to the size of 5-6 weeks pregnancy.
   - Can the diagnosis of 5-6 weeks pregnancy be considered as the final diagnosis?
   - What additional examination should be made to establish the final diagnosis?
   
   The diagnosis cannot be final, it is necessary to make the ultrasonography.
   The inspection of the uterus of the early pregnant patient revealed the asymmetry of the uterus, the left corner of the uterus is much more prominent than the right one.
   - Which sign of the early pregnancy is determined?
     A. Piskacek’s sign *
     B. Hunter’s sign
     C. Horvitz- Hegar’s sign
     D. Sniegiriov’s sign

   - Which examination is likely to make a diagnosis?
     A. Transvaginal ultrasonography*
     B. Bimanual gynecological examination
     C. Palpation of the mammary glands
     D. Immunological test for pregnancy

4. The 24-year-old pregnant V. with a burdensome obstetric history was admitted to the Department of Pathology of Pregnant Women. At 12 weeks of pregnancy she was hospitalized for the risk of miscarriage. After treatment, she was discharged with a saved pregnancy. The fourth pregnancy, the first three ended in spontaneous abortions at 14, 16 and 20 weeks of pregnancy. The uterus is located in the middle between the navel and pubis. Vaginal examination: the cervix is shortened to 2.0 cm, the cervical canal freely passes the finger. The uterus corresponds to 16 weeks of pregnancy. Mucous vaginal discharges. Diagnosis?
   A. *Isthmic-cervical insufficiency
   B. Threatened premature birth
   C. Threatened spontaneous abortion.
D. Onset of the spontaneous abortion.
E. Incomplete spontaneous abortion

5. The 25-year-old pregnant N. was admitted to the maternity ward with regular uterine contraction for 7 hours and bloody vaginal discharge, which appeared half an hour ago. Amniotic fluid did not move away.

Pregnancy 4, first childbirth, previous 3 pregnancies ended in artificial abortions. Fetal heart rate 136 / min. The examination revealed a smoothed cervix, opening of the uterine os by 6-7 cm, cephalic presentation, the amniotic sac is intact, soft spongy tissue is palpated on the side. The diagnosis is lateral placenta previa. What is the doctor’s tactics?

A. *Amniotomy
B. Cesarean section
C. Stimulation of the labor
D. Forceps delivery
E. Embryotomy

Typical situational tasks

1. A 25-year-old woman was admitted to the gynecology department with 9 weeks pregnancy. Complains of lower abdominal pain. History: 2 weeks ago fell ill with severe rubella. Bimanual examination: the cervix is cylindrical, the cervical os is closed, the uterus corresponds to the term of 9 weeks of pregnancy, uterine appendages without marked features. Mucous discharges. What is the doctor’s tactics?

A *Artificial abortion
B Prolongation of pregnancy
C Ultrasonography
D Laparoscopy
E Out-patient supervision

2. The 25 year-old pregnant K. complains of aching pains in the lower abdomen and lower back. Pregnancy 3, 28 weeks. History of 1 medical abortion, 1 miscarriage at 24 weeks of gestation a year ago. The general condition is not disturbed. Vaginal examination: the cervix is shortened to 1.5 cm, the cervical canal freely passes 1 transverse finger, the amniotic sac is not prolapsed. What is the follow up tactics of management of the pregnant woman?

A *Cervical cerclage
B Tocolytic therapy with adrenolytics
C Tocolytic magnesium therapy
D Conservative progestogen therapy
E Termination of pregnancy

3. The 23 year-old patient M. was admitted to the gynecology department with complaints of persistent pain in the lower abdomen, smear bloody discharge. After the examination, the diagnosis was made: “pregnancy2, 8 weeks. Threatened abortion. Type I diabetes mellitus. Severe form, labile course”. The first pregnancy was terminated at 22 weeks due to fetal malformations. At the time of hospitalization, diabetes is decompensated. Blood sugar 17.3 mmol / L. What is the doctor’s tactics?
A * Abortion for medical indications  
B Treatment of threatened abortion  
C reservation of pregnancy in case of compensation for diabetes  
D Abortion in case of diabetes decompensation  
E Abortion in the presence of fetal malformations  

4. A 23-year-old woman with an asthenic physique with cyanosis of the lips and nasolabial triangle presented to antenatal clinic. She suffers from congenital heart disease of the blue type - Tetralogy of Fallot. Menstruation starts at the age of 17 years, irregular in 3-4 months. Bimanual examination reveals that the uterus is enlarged up to 7 weeks of pregnancy, soft, vaults are free, appendages are not defined. Diagnosis: Pregnancy 7 weeks. Congenital heart disease. What is the doctor’s tactics?  
A * Abortion for medical indication.  
B Hospitalization to the therapeutic department for examination and resolution of the possibility of pregnancy.  
C Hospitalization to the Department of Early Pregnancy Pathology to maintain pregnancy.  
D Carrying of pregnancy under outpatient supervision.  
E Recommend surgical treatment of heart disease during pregnancy.  

5. The 25 year-old pregnant M. complained of shortness of breath, even at rest, swelling of the lower extremities, pain in the heart. She was also examined by a cardiologist. Diagnosis: pregnancy 9-10 weeks. Congestive cardiomyopathy. Blood circulation insufficiency, NYHA III. What is the tactics of managing the pregnant woman?  
A * Abortion.  
B Heart surgery.  
C Referral the pregnant woman to the cardiology department.  
D Abortion at 24-25 weeks of pregnancy.  
E Prolongation of pregnancy to the timely labor.  

6. The 25 year-old woman, 10 weeks pregnant. Diabetes mellitus for 11 years in the history. The daily dose of insulin is 84 units. Daily blood glucose of 15-18 mmol / L. Urinalysis: proteinuria 1.65 g / L, glucosuria. Vaginal examination: the uterus is soft, limited mobility, markedly tender, enlarged up to 10 weeks of pregnancy. What are the tactics of an obstetrician-gynecologist?  
A * Timely abortion  
B Abortion for up to 12 weeks  
C Abortion at 27-28 weeks  
D Carrying of pregnancy up to 32 weeks  
E Carrying of pregnancy up to 34-36 weeks  

7. A 38 year-old parturient woman, the first childbirth at term. Upon admission to the delivery room: the circumference of the abdomen 110 cm, the height of the bottom of the uterus - 40 cm. The head of the fetus is shown. The skin of the vulvar ring is pale, slightly pliable. What is your previous diagnosis?  
A * Threatened perineal rupture.
8. A 30-year-old parturient woman, giving birth for the first time has intense labors with an interval of 1-2 minutes, lasting for 50 seconds. The fetal head is shown. The perineum, which is 4 cm high, is pale. What should be done in this situation?
   A Episiotomy
   B Perineal protection
   C Perineotomy
   D Vacuum extraction of the fetus
   E Expectant management

9. A 27-year-old woman with pyelonephritis of a single kidney in the history presented to an antenatal clinic with complaints of missed periods for 2.5 months. The examination revealed a pregnancy of 11 weeks; urinalysis showed protein 3.3 g / L, leukocytes in the entire field of view. What is your tactics for managing a pregnancy in such a woman?
   A * Urgent abortion.
   B Abortion after normalization of urinalysis test.
   C Prolongation of pregnancy up to 36 weeks.
   D Abortion at 24-25 weeks.
   E Prolongation of pregnancy to the timely labor.

10. A 22-year-old woman presented to an antenatal clinic for a pregnancy of 11-12 weeks. The examination revealed positive Wasserman’s reaction; the dermatologist diagnosed secondary latent syphilis. What is your tactics for managing this pregnancy?
    A * Artificial abortion after a course of antisyphilitic therapy.
    B Artificial abortion before a course of antisyphilitic therapy.
    C Urgent termination of pregnancy.
    D Prolongation of pregnancy after 1 course of antisyphilitic therapy.
    E Antisyphilitic treatment three times during pregnancy.

11. Timely labor. The second period has been lasted for 1 hour. The head of the fetus is shown. Fetal heartbeat is rhythmic, dull, 150/min. Perineum is high. Which procedure should be done?
    A * Perineotomy.
    B Cesarean section.
    C Embryotomy.
    D Administration of uterotonics.
    E Expectant management.

12. A 35-year-old pregnant woman with a diagnosis of hypertension stage IIb was referred to the gynecological department of the Central District Hospital from the therapeutic department with complains of a headache in the back of the head. Blood pressure - 180/110 mm Hg. Gynecological examination revealed pregnancy of 10 weeks. Your tactics?
* Artificial abortion.

Carrying of pregnancy to the timely labor.

Intraamniotic administration of gramicidin.

Treatment of hypertonension in the therapeutic department.

Administration of tonomotor drugs.

13. A 24-year-old pregnant woman was hospitalized in the gynecology department at 18-19 weeks of pregnancy with regard to isthmic-cervical insufficiency diagnosed during the ultrasound examination. Gynecological examination revealed that the cervix was shortened to 0.5 cm, its epithelium without pathological lesions. The cervical canal passes the finger. The amniotic sac is intact. The uterus is enlarged to 18-19 weeks of pregnancy, in normal tonus. What are the doctor’s follow up tactics?

A Cervical cerclage.

B Tocolytic therapy.

C Abortion.

D Prevention of distress syndrome.

E Sedative therapy.

References

Basic (available at the UMSA library)

Recommended Literature

Basic (available at the UMSA library)


Additional


On-line resources

Сайт Академії УМСА http://www.umsa.edu.ua/

Сайт кафедри акушерства і гінекології № 1 http://www.umsa.edu.ua/kafhome/kaf_akushgenikology_1/kaf_akushginecology.html

Відеофільми

Сайт бібліотеки УМСА https://biblumsa.blogspot.com/