

Ministry of Education and Science of Ukraine  
V. N. Karazin Kharkiv National University

**OBSTETRIC BLEEDING  
AT THE FIRST TRIMESTER OF PREGNANCY.  
ECTOPIC PREGNANCY**

Guidelines to practical training in obstetrics  
for higher education students of the 5<sup>th</sup> year Medical Faculty

Kharkiv – 2020

**Reviewers:**

**G. V. Storchak** – Candidate of Medical Sciences, Associate Professor of the Department of Obstetrics and Gynecology, Medical Faculty of V. N. Karazin Kharkiv National University;

**V. P. Romayeva** – Candidate of Medical Sciences, Associate Professor of the Department of Perinatology, Obstetrics and Gynecology, KhMAPO.

*Approved for publishing by the decision of Scientific and Methodological Council  
of V. N. Karazin Kharkiv National University  
(protocol № 4 from 24.06.2020)*

0-44

**Obstetric** bleeding at the first trimester of pregnancy . guidelines to practical training in obstetrics for higher education students of the 5<sup>th</sup> year Medical Faculty / comp. O. V. Gryshchenko, T. O. Kozub. – Kharkiv : V. N. Karazin Kharkiv National University, 2020. – 20 p.

The methodical recommendations contain a list of theoretical questions on the topic for independent preparation of students for practical training, a list of recommended and additional literature, as well as an example of test tasks.

**УДК 618.3-005.1+618.31](072)**

© V. N. Karazin Kharkiv National University, 2020

© Grishchenko O. V., Kozub T. O., comp., 2020

© Donchik I. M., design of cover, 2020

# CONTENTS

LIST OF CONDITIONAL ABBREVIATIONS.....	4
INTRODUCTION.....	5
SECTION 1 Etiology, pathogenesis, classification, risk factors development of ectopic pregnancy .....	6
SECTION 2 Tubal pregnancy: clinic, diagnosis, treatment .....	8
2.1 Progressive tubal pregnancy .....	8
2.2 Disrupted tubal pregnancy.....	8
2.3 Diagnosis of tubal pregnancy .....	9
2.4 Treatment of tubal pregnancy .....	11
SECTION 3 Ovarian pregnancy: clinic, diagnosis, treatment.....	14
SECTION 4 Cervical pregnancy: clinic, diagnosis, treatment.....	15
SECTION 5 Abdominal pregnancy: clinic, diagnosis, treatment.....	16
TEST QUESTIONS.....	17
LITERATURE RECOMMENDED.....	19

## **LIST OF CONDITIONAL ABBREVIATIONS**

ICD – international classification of diseases

HCG – human chorionic gonadotropin

USD – ultrasound diagnosis

## INTRODUCTION

Bleeding during pregnancy occupies one of the leading places in obstetric pathology, significantly affect the rate of maternal mortality, which is up to 30 %, and cause development different diseases of the female body.

The problem of ectopic pregnancy is one of the major problems in gynecology. This pathology is found in 2–4 % of the total number of pregnancies and its frequency increases. The urgency of the problem is due to the fact that ectopic pregnancy is one of the common causes of maternal mortality. In the structure of gynecological morbidity specific gravity of ectopic pregnancy is 1,6–25 % and has a steady upward trend. Every second woman out ectopic pregnancy has a history of reproductive disorders functions. In addition, after ectopic pregnancy in 60–80 % of patients infertility develops, and at 20–30 % recurrent ectopic pregnancy.

## SECTION 1

### **Etiology, pathogenesis, classification, risk factors development of ectopic pregnancy**

Ectopic pregnancy is a pregnancy in which an egg is produced implanted and developed outside the uterine cavity.

Modern classification identifies frequent and rare forms of ectopic pregnancy.

By ICD – 10 distinguish:

*1. By localization:*

- abdominal pregnancy;
- tubal pregnancy;
- ovarian pregnancy;
- other forms of ectopic pregnancy;
- ectopic pregnancy is not specified.

*2. In the course of:*

- progressive;
- disturbed (tube abortion, rupture of the fallopian tube);
- pregnancy has stopped.

The most common tube localization (up to 98,5 % of cases). Tubal pregnancy is divided into pregnancy in the amputee department of the uterus pipes (43 %), in the isthmic department (53,8 %), in the interstitial department (2,8 %). Rare forms of ectopic pregnancy include the ovary (0,1–0,2 %), pregnancy in the fetal uterus (0,9 %), abdominal (0,4 %), interconnected (0,1 %).

The etiology and pathogenesis of ectopic pregnancy.

To explain the causes and mechanisms of ectopic emergence many theories have been put forward during pregnancy, to which the provisions are common development of this pathology for reasons that delay normal transport fruitful egg on the pipe.

The main cause of impaired function of the fallopian tube is different anatomical changes in its wall or in the surrounding tissues and organs, which are most common is the result of various inflammatory processes. The first place among the reasons is occupied inflammatory processes of the female genital organs that cause damage tissue of the pipe and disrupt its patency.

The source of infection of the uterine appendages is often worm-shaped the appendix or other parts of the intestine. This is associated with a higher frequency right tube pregnancy.

Likewise artificial abortion can cause abnormal changes in the tubes and the ovaries.

Surgery on other pelvic organs may also occur etiological factors of ectopic pregnancy due to the formation of adhesions and splices that alter the anatomical ratios in the pelvis and affect on normal peristaltic movements of the tube.

Tumors of the uterus and appendages also alter the anatomical relationships in the pelvis and can reduce the transparency of the pipe, breaking the passage on it eggs.

The presence of tumors is often combined with hormonal disorders ovarian function, which negatively affects the condition of the fallopian tube.

Endometrioid heterotopias in tubes change their window, form constriction and diverticula. Endometriosis is often combined with an inflammatory process and accompanied by the formation of adhesions and splices around the appendages of the uterus.

Changes play a significant role in the emergence of ectopic pregnancy pituitary – ovarian relations, impaired cyclic secretion pituitary hormones, estrogens, progesterone, which has an effect on peristalsis of the pipe. Given that the transport function of the uterus tubes have the effect of ovarian hormones then in the etiology of ectopic pregnancy Dysfunction of the ovaries and other endocrine organs is of particular importance.

Underdevelopment of the genital apparatus (infantilism) may also be present cause of ectopic pregnancy, which is associated with excess length and tortuosity of the fallopian tubes, impaired hormonal activity the ovaries. In such patients, infertility is observed and may occur over time ectopic pregnancy.

The risk factors for ectopic pregnancy are:

1. Inflammatory diseases of the uterus and uterine appendages in history.

2. Scar-adhesive changes of the pelvic organs due to the transferred previously operations on the internal genital organs, pelvioperitonitis, abortion.

3. Violation of hormonal function of the ovaries.

4. Genital infantilism.

5. Endometriosis.

6. Use of intrauterine contraceptives.

7. Assistive reproductive technologies.

## SECTION 2



### **Tubal pregnancy: clinic, diagnosis, treatment**

#### **2.1. Progressive tube pregnancy**

With progressing ectopic pregnancy, women occur in the body changes that are characteristic of normal uterine pregnancy early. In the ovary develops a yellow body, and a uterine membrane develops in the uterus, which macroscopically does not differ from that during uterine pregnancy. Only microscopically determined the absence of elements of the fruit egg. Uterus softens and increases slightly in size. Functioning chorion produces chorionic gonadotropin, which is determined during the study. In women's body has the same changes as during normal pregnancy: there are doubtful and probable signs of pregnancy (menstrual delay though a certain percentage of women may not be delayed, milked glands, colostrums may appear; there are changes in the nervous system, such as irritability, drowsiness, mood instability; may appear pigmentation of the skin, white belly, nipples). Cyanosis appears vaginal mucosa and cervix. It appears in the uterine mucosa decidual tissue. During vaginal examination noted softening of the uterus, especially the isthmus, but after six weeks pregnancy of the uterus lags behind in size. There are signs of Horwitz – Gegar, Ghent, Hubarev, but there are no signs of Snegirev and Piskachek. During a two-hand examination on the side of the uterus is palpated soft, swollen formation of elastic consistency, painful and pulsating.

#### **2.2. Disrupted tubal pregnancy**

Tubal pregnancy is usually interrupted by 4 to 6 weeks of pregnancy type of tubal abortion (internal rupture of the fetus) or rupture pipes (outer gap).

*Uterine tube rupture.* In case of violation of the integrity of the fallopian tube with ruptured vessels begins bleeding into the abdominal cavity, which leads to anemia and hemorrhagic shock. The closer it develops to the uterus pregnancy in the tube, the more often there is a rupture of the tube and a massive internal bleeding. Sudden abdominal pain suddenly occurs in full health, especially in one of the club sections, which protrudes into the anus, across, lower extremities. There is often short-term fainting, dizziness, nausea, vomiting. There is a desire to bowel movement. The patient is pale, the pupils extended, cold sweat on the face, pale lips, with a bluish tinge. In the anamnesis of the patient has the same characteristic features

as the progressing one ectopic pregnancy. Pulse frequent, weak filling and tension. Blood pressure is reduced. A phrenicus-symptom appears. Belly swollen. Percussion and palpation are painfully painful. The symptoms of irritation are identified peritoneum. If the bleeding continues, then the pattern of shock increases, anemia is progressing. In most cases, vaginal discharge immediately after there are no terminations of pregnancy because the deciduous membrane does not have time exfoliate.

*Tube abortion (pipe abortion)* occurs more often than a pipe rupture. Clinically the pattern of tube abortion develops slowly. They happen exfoliation of the fetal egg, internal rupture of the fetus, and blood which enters the abdominal cavity, drains into the ectopic space and forms ectopic hematoma. Sometimes blood flows out of the tube slowly, small portions and forms a blood mold around it – the peritubar hematoma.

The clinical picture depends on the intensity of bleeding. Usually in communication with the slow development of the disease, the clinical picture is not typical, the symptoms are not clear, the general condition of the patient for a long time remains satisfactory. Therefore, diagnosis is often difficult.

### **2.3. Diagnosis of tubal pregnancy**

#### *Clinical signs*

##### 1. Signs of pregnancy:

- menstrual delay;
- breast clotting;
- change of taste, olfactory and other sensations characteristic of pregnancy;
- signs of early preeclampsia (nausea, vomiting);
- positive immunological responses to pregnancy (HCG in serum and urine).

##### 2. Disorders of the menstrual cycle – smear, blood flow from genital tract:

- after fixing menstrual delay;
- with the beginning of the next menstruation;
- before the onset of expected menstruation.

##### 3. Pain syndrome:

- unilateral contractile or constant lower abdominal pain;
- sudden intense pain in the lower abdomen;
- peritoneal symptoms in the lower abdomen of varying degrees expressiveness;
- irradiation of pain in the rectum, perineum and sacrum.

4. Signs of intra-abdominal bleeding (in case of disturbed ectopic pregnancy):

-blunting of percussion sound in the flanks of the abdomen;  
- a positive symptom of Cullencamp (signs of irritation) peritoneum in the absence of local muscular tension in the lower departments of the abdomen);

- in the horizontal position of the patient positive bilateral "Frenicus" – a symptom, and in the vertical – dizziness, fainting;

- in the case of significant hemoperitoneum – a symptom of Shchotkin – Blumberg;

- a progressive decrease in hemoglobin, red blood cells, hematocrit according to the results of a blood test.

5. General disorders (in case of ectopic pregnancy):

- weakness, dizziness, fainting, cold sweat, collapse, hemodynamic disorders;

- nausea, reflex vomiting;

- flatulence, single diarrhea.

*Gynecological examination data:*

- during examination in the mirrors, the cervix is cyanotic, the eye is closed;

- vaginal examination is sharply painful, especially for displacement of the cervix;

- the uterus is slightly enlarged in size, soft, sharply painful on palpation, the impression is that the uterus «floats» in the fluid – a symptom of «floating uterus»;

- the size of the uterus is smaller than they should be at a certain period of pregnancy;

- through one of the lateral vaults are determined appendages without clear contours;

the back arch is baked, his palpation is painfully painful («cry Douglas»).

*Special laboratory examination* – a qualitative or quantitative test for HCG. Qualitative determination of HCG in urine is possible in any security institution health, whereas quantitative analysis of  $\beta$ -HCG in serum (less than expected at the appropriate term of physiological pregnancy) is performed at level III medical institutions.

*Hardware and instrumental survey methods.*

*Transvaginal ultrasound:*

- absence of a fertile egg in the uterine cavity;

- visualization of the embryo outside the uterine cavity;

- detection of the formation of heterogeneous structure in the field of uterine projection pipes;

- a significant amount of free fluid in Douglas space.

*Laparoscopy* – visual establishment of ectopic pregnancy in as:

- retortiform thickening of the fallopian tube of the bluish-cyanotic tube color;

- fallopian tube rupture;

- bleeding from the ampoule or from the place of rupture of the fallopian tube;

- the presence in the abdominal cavity and in the Douglas paunch blood space in the form of convolutions or in a liquid state;

- presence in the abdominal cavity of the elements of the fruit egg.

*Diagnostic scraping of uterine cavity walls:*

- absence in the scraping of elements of a fruit egg;

- presence in the scrap of decidual tissue.

Diagnostic scraping of the walls of the uterus is performed by conditions of informed consent of the patient to this manipulation. In the case of small menstrual delay, women's interest in retaining the uterus pregnancy and no symptoms of intra-abdominal bleeding is necessary choose the expected tactics based on clinical features, ultrasound dynamics observation and level of  $\beta$ -HCG in serum at hospital.

*Puncture of the abdominal cavity through the posterior paunch of the vagina:*

Conducted for differential diagnosis. Presence in the punctate liquid blood is one of the signs of impaired ectopic pregnancy.

In case of clinical signs of significant intra-abdominal bleeding, puncture abdominal cavity through the posterior vaginal arches is not performed, since these delays operation start time.

*Differential diagnostics.* Diagnosis of ectopic pregnancy sufficiently simple in patients with amenorrhea, signs of pregnancy, and pain lower abdomen and bleeding. But you must exclude the following states:

- torsion or rupture of the ovarian cyst;

- acute appendicitis;

- interruption of uterine pregnancy;

- hemorrhage into the yellow body;

- ovarian apoplexy.

## **2.4. Treatment of ectopic pregnancy**

*Principles of management of patients with ectopic pregnancy:*

1. Suspicion of ectopic pregnancy is an indication of urgency hospitalization.

2. Early diagnosis helps reduce the number of complications and provides the opportunity to use alternative therapies.

3. In case of established diagnosis of ectopic pregnancy is necessary to undergo immediate surgery (laparoscopy, laparotomy). Surgical treatment of ectopic pregnancy is optimal. In the modern conservative treatments may be possible in practice ectopic pregnancy.

4. In case of pronounced clinical picture of ectopic pregnancy, the presence of hemodynamic disorders, the patient's hypovolemia immediately hospitalized for immediate surgery as soon as possible terms with laparotomic access. If the clinical picture is erased, there are no signs hypovolemia and internal bleeding - conduct ultrasound of the pelvic organs and / or laparoscopy.

5. At the pre-hospital stage in case of impaired ectopic pregnancy the amount of first aid is determined by the general condition of the patient and the amount of blood loss. Infusion therapy (volume, rate of administration solutions) depends on the stage of hemorrhagic shock (see topic «Hemorrhagic shock»).

6. Severe condition of the patient, the presence of pronounced hemodynamic disorders (hypotension, hypovolemia, hematocrit less than 30 %) are absolute indications for surgery with laparotomy access with removal of the pregnant woman the fallopian tube and carrying out shock therapy.

7. Apply a comprehensive approach to the treatment of women with ectopic pregnancy, which includes:

- surgical treatment;
- fight against bleeding, hemorrhagic shock, blood loss;
- management of the postoperative period;
- rehabilitation of reproductive function.

8. Surgical treatment is carried out both laparotomy and laparoscopic access. The advantages of laparoscopic techniques include:

- reduction of the duration of the operation;
- reduction of the duration of the postoperative period;
- reducing the length of stay in the hospital;
- reducing the number of scar changes of the anterior abdominal wall;
- cosmetic effect.

9. Performing organ-saving operations for ectopic pregnancy is accompanied by the risk of development in the postoperative period of persistence trophoblast resulting from its incomplete removal from the fallopian tube and abdominal cavity. The most effective method of preventing this complication is careful washing of the abdominal cavity 2-3 liters saline and single administration of methotrexate at a dose of 75-100 mg intramuscularly in the first, second days after surgery.

*Surgery for tubal pregnancy:*

1. *Salpingostomy (tubotomy)*. Runs longitudinally salpingostomy. The salpingostomy is not sutured after removal of the fertile egg. When the chorionic villi do not sprout into the uterine muscle pipes, limited by its scraping.

2. *Segmental resection of the fallopian tube*. The uterine segment is removed tubes that have a fertile egg and then perform an anastomosis of two the ends of the pipe. If the salpingo-anastomosis cannot be performed bandage both ends and anastomosis later.

3. *Salpingectomy*. This operation is performed in case of broken pipe pregnancy, accompanied by massive bleeding. Operation and in this case, the blood transfusion is performed simultaneously.

*Conservative treatment for ectopic pregnancy*

*Treatment of advanced ectopic pregnancy with methotrexate can only be conducted at third-level health facilities, where available the possibility of determining the  $\beta$ -subunit of HCG in serum and conducting Ultrasound transvaginal sensor.*

To avoid the introduction of methotrexate in normal uterine pregnancy or a failed miscarriage is prescribed only in the following cases:

1. Increased level of  $\beta$ -HCG in serum after organ-preserving surgery on the fallopian tube, which is performed on the progressing ectopic pregnancy.

2. Stabilization or increase in the level of  $\beta$ -HCG in serum during 12–24 hours after separate diagnostic scraping or evacuation, if the size of the fertile egg in the uterine appendages does not exceed 3,5 cm.

3. Determination of a fetal egg transvaginal sensor during ultrasound with a diameter of not more than 3,5 cm in the uterine appendages in the case of  $\beta$ -HCG level more than 1500 IU / l in the absence of a fertile egg in the uterus.

If serum  $\beta$ -HCG levels decreased by less than 15 % by eighth day, methotrexate is re-injected at the same dose.

If the level of  $\beta$ -HCG in serum increased by more than 15 %, sick observed that weekly determine the level of  $\beta$ -HCG until that level will be less than 10 IU / l.

## SECTION 3

---

### **Ovarian pregnancy: clinic, diagnosis, treatment**

It develops in the event of fertilization of an egg in the cavity of the follicle. The incidence of ovarian pregnancy is 0.5–1 % of all ectopic pregnancy and ranks second in frequency after tubal pregnancy. The only one the risk factor for this option is ectopic pregnancy intrauterine contraceptives.

#### *Diagnosis*

The clinical signs are the same as for tubal pregnancy. For the violated ovarian pregnancy is also possible clinic for hemorrhagic shock. In 75 % cases of ovarian pregnancy are mistakenly diagnosed with apoplexy of the ovary. In the diagnosis of ultrasound helps the pelvic organs, especially transvaginal sensor when the fertile egg is rendered in the ovary and a positive qualitative response to HCG.

#### *Signs of ovarian pregnancy during ultrasound:*

- the fallopian tube on the affected side is unchanged;
- the fertile egg is in the projection of the ovary;
- the fertile egg is connected to the uterus by its own ovarian ligament;
- ovarian tissue is visualized among the fruit membranes.

#### *Treatment*

Surgical treatment involves the removal of fetal eggs and wedge-shaped resection of the ovary. In case of massive ovarian and significant intra-abdominal bleeding perform an ovariectomy.

## SECTION 4

---

### **Cervical pregnancy: clinic, diagnosis, treatment**

Cervical pregnancy is one of the rare and severe ectopic options pregnancy when the implantation of a fertilized egg took place in the canal the cervix

#### *Diagnosis*

1. History, including gynecological. Pay attention to the number abortion and the course of the post-abortion period, inflammatory diseases internal genitals, including the cervix.

2. Examination of the cervix in the mirrors. Cyanotic render barrel cervix.

3. Careful bimanual gynecological examination. The uterus together with neck in the form of "hourglass".

4. Ultrasound examination of the pelvic organs.

Ultrasound signs of cervical pregnancy:

- the absence of a fertile egg in the uterus;
- hyperechogenicity of the endometrium (decidual tissue);
- heterogeneity of myometrium;
- uterus in the form of «hourglass»;
- expansion of the canal of the cervix;
- fertile egg in the cervix;
- placental tissue in the canal of the cervix;
- closed internal uterine cell.

#### *Differential diagnostics:*

Cervical pregnancy is differentiated with involuntary abortion, fibroids, cervical cancer, loss of submucosal fibroids on the leg, trophoblastic tumor, presentation and low location placenta. Ultrasound makes it possible to carry out differential diagnosis quite clearly, to identify differences between cervical pregnancy and other obstetric and gynecological pathology.

#### *Treatment:*

1. In the case of diagnosed cervical pregnancy – a definite rejection of conducting scratching of the uterine cavity walls, which can lead to development of profuse bleeding.

2. The method of treatment of cervical pregnancy – surgical (extirpation uterus).

3. After confirming the diagnosis of cervical pregnancy, determine the group blood and Rh-factor, establish the venous catheter, receive informed written consent of the patient to perform extirpation of the uterus. In transfusion departments order single-group fresh frozen plasma, freshly prepared erythrocyte mass, preparations are prepared hydroxyethylated starch.

## SECTION 5

---

### **Abdominal pregnancy: clinic, diagnosis, treatment**

It makes 0,003 % of all cases of ectopic pregnancy. Distinguish primary and secondary abdominal pregnancy. By primary understand implantation of a fertilized egg in the abdomen. Secondary – formed when the fertile egg is in the abdominal cavity after tube abortion. Maternal mortality in abdominal pregnancy is 7–8 times higher than the trumpet and 90 times higher than the uterus.

#### *Diagnosis*

Clinical manifestations depend on the duration of pregnancy:

1. In the first and the beginning of the second trimester, they differ little from the symptoms of tubal pregnancy.
2. At a later date, pregnant women complain of pain during wiggling fetus, feeling of agitation in the epigastric region or sudden termination moving the fetus.
3. During physical examination, soft parts are easily palpated the fetus and the uterus are small in size.
4. Ultrasound is used for diagnosis.
5. Performing diagnostic laparoscopy in the first trimester

#### *Treatment*

Given the high risk of maternal mortality, immediately after diagnosis is carried out surgical treatment. During the operative treatments isolate and bandage vessels that supply blood to the placenta, and remove it whenever possible. If this is not possible due to the strong bleeding, the placenta is tamped. Tampons are removed after 24–48 hours and more. If these vessels cannot be isolated, they are also bandaged cut off the umbilical cord and leave the placenta.

#### *The postoperative period*

If the placenta is found after surgery in the abdominal cavity, its condition evaluated by ultrasound and determination of the level of the subunit of HCG. In these cases of very high risk of intestinal obstruction, fistula, sepsis. The use of methotrexate is contraindicated as it is accompanied severe complications, especially sepsis. The cause of sepsis is massive placental necrosis.

## TEST QUESTIONS

1. A patient of 30 years, married for 4 years, during this time was one involuntary abortion at 8 weeks. He has been having sex for 18 years. Pregnancy before marriage is not was, from pregnancy was not guarded. The appendix has not been deleted. The last one menstruation is delayed by 9 days. The day before she noted minor genital bleeding. Asked for women's advice due to sharp abdominal pain, nausea, weakness, flatulence, single diarrhea. What is the previous diagnosis?

- \* A. Disrupted tubal pregnancy.
- B. Acute appendicitis.
- C. Food poisoning.
- D. Menstrual disorders.

2. Patient, 24 years old, operated on for pregnancy, left-sided tube-ectomy performed. She is interested in pregnancy. What are the recom-mendations need to provide a woman?

- \* A. Perform contraception for 6 months.
- B. Allow pregnancy after first menstruation.
- C. Determine  $\beta$ -HCG levels after 2 months.
- D. Monitor the ultrasound after a month.

3. A 23-year-old woman has turned to a gynecologist for complaints of heavy blood flow genital excretion after a menstrual delay of 8 weeks. During examination of the body of the uterus is increased to 12 weeks o f pregnancy, bleeding with the elements bubble-like tissue. Which additional examination is the most appropriate?

- \* A. Ultrasound.
- B. X-ray examination.
- C. Immunological test for pregnancy.
- D. Laparoscopic examination.
- E. Determination of chorionic gonadotropin.

4. Ectopic pregnancy cannot be:

- A. The trumpet.
- B. Ovarian.
- C. Belly.
- D. In the rudimentary uterine corner.
- \* E. In the bladder.

5. The main causes of tubal pregnancy:

A. Inflammatory processes in the tube.

B. Obstruction of the fallopian tubes.

\* C. Everything is listed.

6. The clinical classification of tubal pregnancy includes the following types except:

A. Progressive.

\* B. Uterine miscarriage.

C. Tubular miscarriage.

D. Pipe rupture.

7. The main symptoms of tubal progressive pregnancy are:

A. Lack of monthly delay.

B. Normal menstrual cycle.

C. Appearance of «tumors» on the abdomen

D. The appearance of pigment spots.

\* E. Growing bursting pains in the lower abdomen.

## LIST OF RECOMMENDED LITERATURE

### *Required*

1. E. Albert Reece & John Hobbins Clinical Obstetrics of Fetus and Mother. – Third Edition. – Blackwell publishing, 2007. – 328 p.
2. Evans A. T., Niswander K. R. Manual of Obstetrics. Philadelphia, 2000. – 654 p.
3. Jennifer R., Niebyl, Henry L. Galan, Mark B. Landon, Joe Leigh Simpson, Eric R. M. Jauniaux Obstetrics: Normal and Problem Pregnancies. – Elsevier Health Sciences, 2012. – 1292 p.
4. Manual on Obstetrics / Arthur T. Evans. – Seventh Edition. – Lippincott Williams & Wilkins. – 2007. – 425 p.
5. Stuart Campbell, Christoph Lees Obstetrics by Ten Teachers. Malta, 2003. – 516 p.

### *Additional literature*

1. Martin L., Pernoll Benson & Pernoll's handbook of Obstetrics & Gynecology – Tenth Edition, 2010. – 910 p.
2. Obstetrics – edited by Professor I. B. Ventskivska, Kyiv “Medicine”, 2008. – 396 p.
3. Obstetrics & Gynecology PreTest Self-Assessment & Review, Twelfth Edition by Karen M. Schneider, Stephen K. Patrick, 2009. – 289 p.
4. Obstetrics & Gynecology PreTest Self-Assessment and Review Eleventh Edition by Karen M. Schneider, Stephen K. Patrick.-McGraw-Hill Medical Publishing Division, 2006. – 347 p.
5. Obstetrics Illustrated by Kevin P. Hanretty – 2009. – 437 p.
6. Obstetrics Illustrated by Kevin P. Hanretty. – Sixth Edition. – Churchill Livingstone, 2003. – 478 p.
7. Williams Obstetrics / M. C. Graw Hill/ 2005

Навчальне видання

**Грищенко** Ольга Валентинівна  
**Козуб** Тетяна Олександрівна

**Акушерські кровотечі під час першого триместру вагітності.  
Позаматкова вагітність**

Методичні рекомендації  
до практичних занять з акушерства для здобувачів вищої освіти  
V курсу медичного факультету

(Англ. мовою)

Комп'ютерне верстання *В. В. Савінкова*  
Макет обкладинки *І. М. Дончик*

Формат 60×84/16. Ум. друк. арк. 1.24. Наклад 50 пр. Зам. № 104/20.

Видавець і виготовлювач  
Харківський національний університет імені В. Н. Каразіна,  
61002, м. Харків, майдан Свободи, 4.  
Свідоцтво суб'єкта видавничої справи ДК № 3367 від 13.01.2009

Видавництво ХНУ імені В. Н. Каразіна  
Тел. 705-24-32