



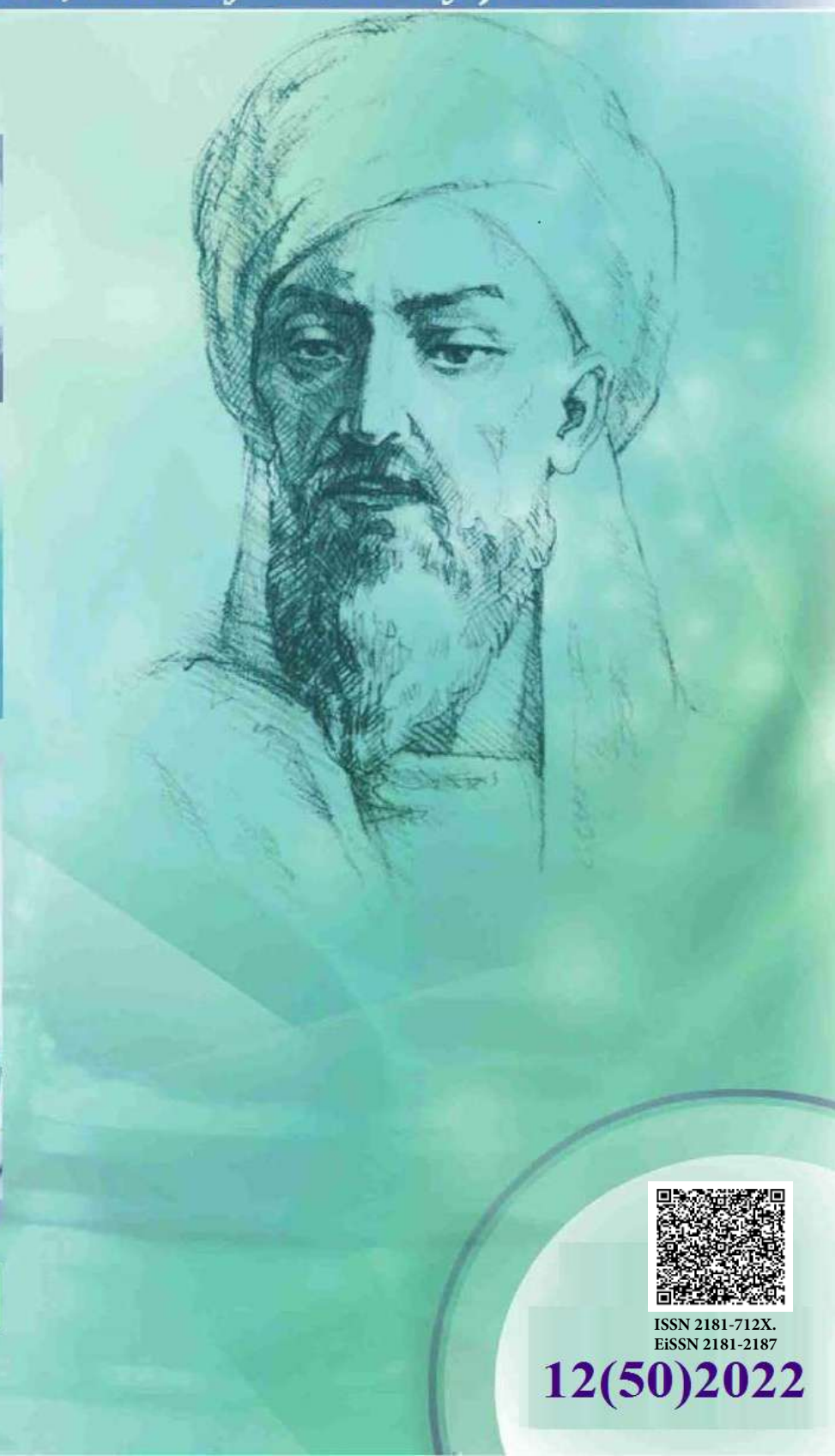
New Day in Medicine
Новый День в Медицине

NDM



TIBBIOVIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EiSSN 2181-2187

12(50)2022

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НОВЫЙ ДЕНЬ В МЕДИЦИНЕ
NEW DAY IN MEDICINE**

Илмий-рефератив, маънавий-маърифий журнал

*Научно-реферативный,
духовно-просветительский журнал*

УЧРЕДИТЕЛИ:

**БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ
МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»**

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исследовательский центр хирургии имени
А.В. Вишневского является генеральным
научно-практическим
консультантом редакции

Журнал был включен в список журнальных
изданий, рецензируемых Высшей
Аттестационной Комиссией
Республики Узбекистан
(Протокол № 201/03 от 30.12.2013 г.)

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12 (50)

2022

декабрь



Received: 20.11.2022
Accepted: 29.11.2022
Published: 20.12.2022

UDC 616.091-002-036.12-092

OBSTETRIC AND PERINATAL OUTCOMES IN PREGNANT WOMEN WITH WITH CARDIOVASCULAR DISEASES IN THE FERGANA REGION: PROBLEMS, THE CHOICE OF RATIONAL OBSTETRIC TACTICS

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✓ Resume

This article discusses the experience of managing pregnancy, childbirth, and the postpartum period in women with diseases of the cardiovascular system. The data on the management of pregnant women with the most common diseases of the cardiovascular system in pregnant women and the tactics of their management are presented.

Keyword. *Pregnancy, childbirth, postpartum period, congenital and acquired heart diseases, perinatal mortality, caesarean section, heart valves, abortion, early delivery, and delivery standards.*

АКУШЕРСКИЕ И ПЕРИНАТАЛЬНЫЕ ИСХОДЫ У БЕРЕМЕННЫХ С ПРИ СЕРДЕЧНО-СОСУДИСТЫХ ЗАБОЛЕВАНИЯХ В ФЕРГАНСКОЙ ОБЛАСТИ: ПРОБЛЕМЫ, ВЫБОР РАЦИОНАЛЬНОЙ АКУШЕРСКОЙ ТАКТИКИ

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✓ Резюме

В данной статье рассматривается опыт ведения беременности, родов и послеродового периода женщин с заболеваниями сердечно-сосудистой системы. Представлены данные по ведению беременных с наиболее часто встречающимися заболеваниями сердечно-сосудистой системы у беременных и тактика их ведения.

Ключевые слова. *Беременность, роды, послеродовый период, врожденные и приобретенные заболевания сердца, перинатальная смертность, кесарево сечение, клапаны сердца, прерывание беременности, досрочное родоразрешение, стандарты ведения родов.*

HOMILADOR AYOLLARDA AKUSHERLIK VA PERINATAL NATIJALARI FARG'ONA VILOYATIDAGI YURAK-QONTOM KASALLIKLARIDA: MUAMMOLAR, AKUSHARLIK TAKTIKASINI TANLASH.

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✓ Rezyume

Ushbu maqolada yurak-qon tomir tizimi kasalliklari bo'lgan ayollarda homiladorlik, tug'ish va tug'ruqdan keyingi davrni boshqarish tajribasi muhokama qilinadi. Homilador ayollarda yurak-qon tomir tizimining eng keng tarqalgan kasalliklari bo'lgan homilador ayollarni boshqarish va ularni davolash taktikasi bo'yicha ma'lumotlar keltirilgan.

Kalit so'zlar. *Homiladorlik, tug'ruq, tug'ruqdan keyingi davr, tug'ma va orttirilgan yurak kasalliklari, perinatal o'lim, sezaryen, yurak klapanlari, abort, erta tug'ish, tug'ish standartlari.*



Relevance

Until now, diseases of the cardiovascular system in women of childbearing age and pregnant women are still considered one of the main causes of complications during pregnancy, childbirth, and perinatal mortality. The incidence of heart disease in pregnant women ranges from 0.4% to 4.7%. In recent years, there has been an increase in the number of pregnant women and women in labor with diseases of the cardiovascular system. This, in turn, is explained by the early diagnosis of the disease, the increase in the number of operations in the heart area, and the expansion of indications for pregnancy. Modern literature shows that the course of pregnancy and the outcome of childbirth in women with heart disease depend not only on the type of heart disease, circulatory disorders, the activity of the rheumatic process, but also on the state of the compensatory adaptive response of various organs and systems, obstetric tactics. It is noted in the literature that most often a lethal outcome in women with heart defects is observed in the postpartum and early postpartum period. The tactics of managing pregnancy and childbirth in women with CVD is still considered very relevant. Recently, there are more and more women who have undergone heart surgery, but this does not always mean that as a result of corrective heart surgery, organic changes in the valvular apparatus are completely excluded, and even after surgery, there are cases of relapses.

According to accepted protocols, pregnant women with heart disease should be hospitalized at least 3 times during the entire pregnancy. The first hospitalization should take place before the 12th week of pregnancy, in a specialized hospital for the necessary obstetric and cardiological examinations to determine the possibility of prolonging the pregnancy. An indication for termination of pregnancy is the risk of pregnancy and childbirth of 3-4 degrees. The second hospitalization should be at 28-32 weeks of gestation, during the period when the hemodynamic load on the heart is highest. During this period, the pregnant woman must be hospitalized for examination and preventive treatment. The third hospitalization should take place 2 weeks before the expected date of delivery in order to conduct an obstetric-cardiological examination and decide on a delivery plan.

The delivery plan should be chosen on the basis of a consultation with doctors and a consultation with a cardiologist, subject to a full assessment of the pregnant woman's condition.

Among extragenital diseases, the first place in terms of maternal mortality is occupied by diseases of the cardiovascular system, which account for 80-85%. The main causes of death are acute right ventricular failure, arrhythmia, pulmonary edema, and thromboembolism caused by pulmonary hypertension. These diseases rank second in perinatal mortality. The total number of heart defects in the population is 3 - 4.7%.

At the same time, in 27% of women, heart disease first manifests itself only during pregnancy.

1. Among heart defects, acquired heart defects predominate, of which 85-89% are rheumatic defects. The mitral valve ranks first in terms of frequency of injury. Concomitant mitral defects account for 49-70%, mitral stenosis-20%, mitral valve insufficiency-15%. In second place in terms of prevalence are aortic valve defects, which account for 8-10% of all acquired heart defects.

2. Congenital heart defects. It accounts for 7.3-8% of all heart defects in pregnant women.

The most common heart defects: 1. Open ductus arteriosus. 2. Defects of the interatrial septum. 3. Ventricular septal defect. 4. Stenosis of the pulmonary artery. 5. Subvalvular aortic stenosis. 6. Transposition of the great vessels.

3. Pregnant women undergoing heart surgery account for 1-1.5%.

1) Mitral or mitral-aortic commissurotomy

2) Artificial heart valves.

The possibility of maintaining a pregnancy depends on the following criteria:

- the activity of the rheumatoid process;
- the presence of signs of circulatory disorders;
- the type of heart disease.

Despite the high functional diagnostics and acquired clinical qualifications achieved during pregnancy and childbirth in pregnant women with heart defects, among medical workers in many practical cases there is an increase in cases of overdiagnosis, unreasonable termination of pregnancy, and an increase in the frequency of delivery by cesarean section. As is known, the nature of hemodynamic changes in pregnant women with heart defects is similar to the symptoms of heart failure. Diagnosis of heart failure in pregnant women presents certain difficulties since hemodynamic changes

are also observed in heart failures, such as an increase in BCC, tachycardia, and edema, as in a normally developing pregnancy.

Analysis of the perinatal center of the Fergana region for 3 years.

The perinatal center of the Fergana region is designed to provide medical, perinatal preventive, and specialized care for 19 cities and regions. The center employs 35 obstetrician-gynecologists, 5 anesthesiologists-resuscitators, and 20 non-anthologists. The center is designed for 220 beds.

We have analyzed obstetric and perinatal complications in pregnant women with heart problems for 2019-2020-2021. On average, 9850 women received perinatal care per year. Of these, total births in 2019 - 6542, in 2020 - 6850, in 2021 - 7223. Over 3 years, you can see an increase in the birth rate in dynamics.

Since our topic today is devoted to heart disease, we will try to analyze these indicators. The total number of women with cardiovascular disease of the total number of births in 2019 was 154-2.3%, in 2020 - 200-3.0% and in 2021 - 272-3.7%.

In 2019, 154 (2.3%) women in labor with heart disease were identified, compared with the number of total births: 64 (42%) of them were primiparous, 90 (58%) were multiparous. Women in labor with heart defects according to nosology:

- Atrial septal defect (ASD) - 13.5%;
- Ventricular septal defect (VSD) - 10.4%;
- Cardiomyopathy (KMP) - 2.08%;
- Condition after corrective surgery in the region of the heart 11.4%;
- Combined heart disease - 5.2%;
- Mitral valve insufficiency - 17.7%;
- Stenosis of the pulmonary artery - 3.1%;
- Aortic valve insufficiency - 9.3%;
- Heart rhythm disorders - 23.9%;
- Violation of the conduction of the heart - 2.08%;
- Dextrocardia - 1.04%;
- Cases of using vacuum extraction in childbirth - 5.8%;
- Cases of anesthesia during childbirth - 12.3%;
- Premature birth - 4.5%;

Operative delivery was performed in -11.03% of cases, operations were performed under spinal anesthesia (SMA).

In 2020, the number of women giving birth with heart disease was 200, which is 2.9% of the total number of births.

When distributed according to nosology:

- Mitral valve stenosis - 2.6%;
- Mitral valve prolapse -5.2%;
- Violation of the heart rhythm - 17.1%;
- Mitral valve insufficiency - 26.3%;
- Ventricular septal defect (VSD) - 14.4%;
- Atrial septal defect (ASD) - 5.2%;
- Stenosis of the pulmonary artery - 5.2%;
- Condition after corrective surgery in the region of the heart - 9.2%;
- Violation of the conduction of the heart - 3.9%;
- Combined heart defects - 3.9%.
- Premature birth - 7.8%.
- Pain relief during childbirth - 14.4%.
- Vacuum - extraction in childbirth - 9.2%.

Operative delivery - 25% (spinal anesthesia 21%, intubation anesthesia 3.9%).

Primiparas accounted for 44.7%, multiparous - 55.3%.

In 2021, 272 births with heart disease were registered, which is 3.7% of the total number of births.

When viewed by nosology:

- Primiparous - 51.1%;
- Multiparous - 48.9%;

Heart rhythm disorders -18.6%;
 Violation of the conduction of the heart - 2.3;
 Atrial septal defect (ASD) - 6.9%;
 Combined heart defects - 5.8%;
 Aortic valve stenosis - 3.4%;
 Aortic valve insufficiency -13.9%;
 Mitral valve insufficiency -12.7%;
 Dextrocardia -1.1%;
 Ventricular septal defect (VSD) - 5.8%;
 Condition after corrective surgery in the region of the heart - 6.9%;
 Tetralogy of Fallot - 3.4%;
 Cardiomyopathy - 5.8%;
 Stenosis of the pulmonary artery -4.6%;
 Open ductus arteriosus (PDA) - 8.1%;
 Operative delivery - 25% (SMA 20.9%, intubation anesthesia 4.6%);
 Pain relief during childbirth - 16.2%;
 Vacuum extraction during labor was 12.7%.

The results of the analysis show that over the course of 3 years the number of pregnant women with heart diseases has been growing in dynamics, but with the use of new pregnancy management tactics, their introduction into practice, complications have relatively decreased, maternal mortality and perinatal mortality have decreased. As a result of the joint work of cardiologists and obstetricians-gynecologists, applying the 2018-2019 guidelines introduced by the New York Heart Association in the management of pregnant women with heart defects, the indications for caesarean section were revised and a relative reduction in the number of operations was achieved. Indications for caesarean section are:

- aortic insufficiency (due to the increase in left ventricular failure);
- with a combination of decompensated and subcompensated heart disease with obstetric pathology.

With aortic insufficiency decompensation quickly sets in. The occurrence of attacks of cardiac asthma is a prognostically unfavorable sign. At the same time, 33% of pregnant women with aortic insufficiency develop preeclampsia (30%). Premature birth occurred in 30% of cases. In 15% of cases postpartum there was hypotonic bleeding. For 3 years of maternal death with aortic insufficiency, there was 1 case of maternal death in the Baghdad region, where the family of the pregnant woman hid this disease from doctors (1.1%). Given the high risk of maternal mortality in pregnant women with aortic insufficiency, pregnancy is contraindicated.

The operation of applying obstetric forceps is performed in our center very rarely (1%), because, high risk of injury to the mother and fetus at the same time. Most often, a cesarean section is used.

Pregnant women with **mitral stenosis** have a complicated course of pregnancy and childbirth. Preeclampsia developed in 12% of pregnant women, and preterm birth in 24% of pregnant women. In the postpartum period, heart failure, pulmonary edema, ascites, and toxic-septic postpartum complications were also observed. In newborns, malnutrition, asphyxia, symptoms of CNS damage, prematurity, and congenital malformations were noted.

The degree of development of mitral stenosis plays a decisive role in choosing the tactics of managing pregnant women with mitral stenosis. With 1 and 2 degrees of mitral stenosis, the risk of pregnancy is justified. Grade 3 indicates high risk and degree 4 is a degree of unjustified risk, and at the same time, termination of pregnancy does not alleviate the condition of the woman, does not save the woman and her child.

Mitral valve insufficiency, accompanied by an increase in the cavities of the heart, cardiac arrhythmias, circulatory failure, refers to the 4th degree of risk of maintaining pregnancy. In this case, complications of pregnancy in the form of pulmonary embolism, pulmonary edema, and bacterial endocarditis are common. Possible severe malnutrition of the newborn, antenatal fetal death. Delivery of pregnant women is carried out by cesarean section.

Patent ductus arteriosus (PDA, battalion duct) is a vessel connecting the aorta and the pulmonary artery. Usually, the disease is diagnosed and operated on in childhood. With an open arterial duct, blood from the aorta enters the pulmonary artery through an uncovered duct, leading to hypervolemia in the

pulmonary circulation with the gradual development of hypertrophy of the left heart. The course of the defect can be different: from asymptomatic to severe clinical manifestations. With uncomplicated patent ductus arteriosus, pregnancy and childbirth are not contraindicated. With a complicated PDA (accession of pulmonary hypertension), pregnancy is contraindicated.

Atrial septal defect (ASD) accounts for about 5-15% of all CHD and occurs more frequently in women than in men. There are 3 types of ASD: primary (20%) is localized at the base of the septum and is often combined with VSD. Secondary (70%) is localized in the center of the septum (in the region of the oval fossa), it is differentiated with an open oval window, which closes shortly after birth.

The vices of the Fallot group. Of greatest practical importance is Fallot's tetrad - the classic "blue" UPU. Which consists of the ventricular septal defect, infundibular pulmonary stenosis, aortic dextran, and right ventricular hypertrophy. "Blue" defects are a contraindication for pregnancy and childbirth, because pregnancy dramatically aggravates the course of these defects. But after a palliative operation - the creation of an aortopulmonary anastomosis - the issue of carrying a pregnancy is decided individually. And if a radical operation is performed - ventricular septal defect play and elimination of obstruction of the right ventricular outlet - it is much more difficult but more effective. Women who undergo these operations, in some cases, can safely endure pregnancy and childbirth.

Management of pregnant women with coarctation of the aorta

Coarctation of the aorta m.b. anywhere, but more often observed in the isthmus, distal to the origin of the left subclavian artery. When measuring A / D on the upper limbs, its level is higher than on the lower limbs. As a result of the obstruction of blood flow into systole, there is an overload and hypertrophy of the left ventricle, followed by its dilatation and heart failure. The question of the possibility of pregnancy is best resolved after surgical correction of the defect. With mildly expressed coarctation of the aorta and arterial pressure not more than 160/90 mm Hg, it is possible to carry a pregnancy and give birth through the natural birth canal (under the supervision of a cardiologist). In case of the development of complications associated with arterial hypertension and the risk of rupture of the altered aortic wall, childbirth ends with a caesarean section. During pregnancy, drug control of arterial hypertension is recommended (cardioselective B-blockers are prescribed: metoprolol, bisoprolol, betaxolol). With persistent high A / D, severe heart failure, with impaired cerebral circulation, pregnancy is absolutely contraindicated. Possible complications of pregnancy with coarctation of the aorta:

- hemorrhage in the brain;
- dissection and rupture of the aorta;
- infective endocarditis;
- spontaneous abortion;
- Fetal growth retardation.

Management of pregnancy in the ventricular septal defect. With Tolochinov-Roger disease (low VSD), pregnancy and childbirth through the natural birth canal are not contraindicated. With a high VSD, the tactics depend on the degree of pulmonary hypertension and the stage of heart failure. With slight pulmonary hypertension and heart failure of the 1st degree, pregnancy is not contraindicated, childbirth is carried out through the natural birth canal. With moderate and high pulmonary hypertension, as well as in the presence of symptoms of poor circulation, corresponding to grades 3-4, pregnancy is contraindicated.

Tactics of managing pregnant women with congenital aortic stenosis.

Pregnancy with this defect is undesirable, and the question of its onset and prolongation should be decided individually. With mild to moderate stenosis of the aortic orifice, pregnancy and successful delivery is possible. In the event of pregnancy, the appearance in the early stages of brain symptoms (frequent syncope), retrosternal pain, and shortness of breath is an indication for termination of pregnancy. If the gestational age is more than 28 weeks, abdominal delivery is indicated.

Rheumatic heart disease.

In patients with rheumatic heart disease, it is necessary to take into account the peculiarities of the course of childbirth, the methods of delivery depend on the state of the pregnant woman at the time of childbirth. The success of childbirth largely depends on the preparation for childbirth, the correct choice

of the method of delivery, the timeliness of therapy during childbirth, the provision of anesthesia and the professional training of medical staff. In childbirth, women in labor with a long rheumatic process undergo cardiac and oxygen therapy. At the end of the 1st stage of labor, glucocorticoids are administered, due to the fact that the function of the adrenal glands in such patients is reduced. Childbirth is carried out spontaneously, through the natural birth canal in the absence of signs of circulatory failure against the background of adequate cardiac therapy and anesthesia. The operation of applying obstetric forceps is necessary for atrial fibrillation, and artificial heart valves, in patients who underwent mitral commissurotomy in the second half in patients with aortic insufficiency and with mild peripheral circulatory disorders mitral stenosis stage II development of the "bovine" heart. Treatment of pregnant women suffering from rheumatic heart disease should be comprehensive, aimed at stopping the rheumatic process, eliminating circulatory failure, and treating fetal growth retardation syndrome. Given the fact that almost all drugs penetrate the placenta to the fetus, the regimen for the use of drugs is different for different forms of heart disease. Prosthetic valves do not tolerate rest, cardiac glycosides are selected individually (digoxin, strophanthin, isolated), under strict control of the patient's condition and ECG data. Treatment usually begins with intravenous administration of drugs, and then, when a therapeutic effect is achieved, they switch to tablet preparations. At the same time, patients receive B vitamins, potassium preparations (panning, asparkam, potassium orotate, etc.), and diuretics. With an active rheumatic process, broad-spectrum antibiotics, acetylsalicylic acid, and antihistamines are prescribed. With the resistance of the rheumatic process after the 32nd week of pregnancy, glucocorticoids are added, and the treatment complex also includes sedative therapy (motherwort, valerian, small tranquilizers.)

Women with congenital heart defects and their children should be examined using genetic diagnostic methods. Congenital heart defects in combination with congenital developmental anomalies (inguinal-umbilical hernia, limb defects, etc.) are often detected in 6-7% of cases in children whose mothers suffer from CHD or have been operated on for congenital heart disease. Every 5th child (20.5%) has developmental anomalies, including CHD (12.5%). Quite often, the form of heart disease in mother and child coincides. What indicates a dominant type of inheritance? The most common is a ventricular septal defect.

In order to prevent bleeding during childbirth, methylergometrine, and carbetocin is used. In the first 24-48 hours of the postpartum period, patients are in the intensive care unit or intensive care unit of the perinatal center. Lactation suppression is indicated in patients with 2-3 degree circulatory disorders, with artificial heart valves. After caesarean section, as well as after pathological childbirth, during the first 6-7 days, women receive indirect anticoagulants - fragipan, clexane, etc. The prothrombin index should be 40-60%. In the first 7-10 days, the puerperal receives a/b SDS. Bed rest averages 6-7 days, after which the patient is transferred to a specialized hospital.

All pregnant women admitted to the center with heart diseases undergo a joint examination by a resuscitator, a cardiologist, an internist, and an obstetrician-gynecologist. Each patient undergoes 100% ECG, ECHO CG, in some cases daily Holter monitoring studies. The center has a scanner (cardiac sensor) necessary for performing an echocardiogram.

Within 3 years of women in labor with cardiovascular diseases, 616 cases were registered, which is 2.9% of the total number of births. Of these, 79.4%, of childbirth took place through the natural birth canal and 20.6% - by cesarean section.

- ❖ **Currently, in the region, and throughout the Republic as a whole, there are problems in the management of pregnant women, women in childbirth, and puerperal with cardiac pathology. What are they:**
- ❖ To date, there are no standards for the management, examination, treatment, and rehabilitation of pregnant women, women in childbirth, and puerperal with the pathology of the cardiovascular system and suspicion of various heart diseases in the 1st link for therapists, cardiologists, and obstetrician-gynecologists.
- ❖ in the outpatient department at the city and district multidisciplinary polyclinics level, it is necessary to establish pregravid diagnostics of cardiac pathology to identify high-risk pregnant women. In particular, to equip ultrasound rooms with cardio sensors for ultrasound machines and train staff to perform echocardiography.
- ❖ it is necessary to create a route map for each pregnant woman, including those with heart diseases, in which maternity institution she needs to be delivered, to which medical institution she will be

transferred after childbirth, to which specialized hospital where she will receive rehabilitation treatment

- ❖ considering the growth of pregnant women with cardiac pathology from year to year, to have a full-time cardiologist on the basis of all perinatal centers of the Republic, to organize a department for pregnant women and women in labor with cardiac pathology, where diagnostic and therapeutic care will be provided (ECG, ECHO CG, ABPM, daily Holter monitoring).

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Entered 20.11.2022