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Research Periodical

Low Anemia in Pregnancy and Pathology of Cardiovascular Diseases (Negative Complications of Other Diseases)

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ABSTRACT

The article includes a variety of experiments, research findings, and recommendations on the causes, complications, and methods for avoiding pregnancy, one of the most pressing issues of our time, as well as possible dangerous cases during this time, disease types and external factors, such as anemia, and the General Pathology of cardiovascular diseases, among other topics.

Keywords:

Pregnancy period, pregnant women, anemia, cardiovascular diseases, child, mitral stenosis, eisenmeiger syndrome, congenital aortic stenosis, aortic coarctation

Introduction. Following the Republic of Uzbekistan's independence, the demand for pharmacists who are experts in their field, such as registration of medications, approval and expertise of regulatory technical documentation, and quality control of medicines and medical equipment, has increased. Certain outcomes in the construction of a contemporary system of delivering medical care to the people have been accomplished as a result of the adoption of measures to reform the Republic's health care system, particularly the processes of pregnancy and infancy. The president of the Republic of Uzbekistan issued a directive "on measures to fundamentally improve the Republic of

Uzbekistan's health care system," which elaborated on the reforms in this field.

Literature Review.

It's no surprise that Hippocrates (460-370 BC) was known as the "Father of Medicine." Gipokrat learned the sciences of medicine from his mother, Fenareta, a well-known midwife, and refined it for a lifetime, eventually becoming a world-famous doctor. Gipokrat is a medical author who has written multiple books. The most important are Gipokrat collections, which include booklets "about the nature of women," "about women's ailments," and "about infertility." However, Gipokrat's observations in obstetrics were just

skimmed over. He believes that childbirth occurs during the ninth month of pregnancy, when the fetus in the mother's womb becomes hungry and climbs the legs to the bottom of the uterus, using his hands to open the cervix.¹

Ibn Sina has written over 450 books, with 242 of them reaching the United States. There are 43 works on medicine among them. "The Law of Medicine," his book, is a royal work. There are five books in the Law of Medicine. The third volume discusses "private" or "local" disorders that affect all parts of the human body, from head to toe. Women's diseases are covered in 89 percent of the work. Women, according to Abu Ali ibn Sina, "fully explain genital disorders."

Moriso (1637-1709), a French obstetrician, wrote a study about the ailments of pregnant women in the seventeenth and eighteenth century. This game covered the stretch of the pubic joint in the process of childbirth, the chances of survival of infantile (7-8 months) babies and other problems of obstetrics. The method of giving birth to the head of the fetus, which is difficult to give birth in childbirth, when the fetus is ahead of time with chickenpox, is in the sentence.

In Uzbekistan, scientific-based obstetrics support began in 1921 with the foundation of the Obstetrics and Gynecology department at the Central Asian State University's Medical Faculty. This community includes K.T.Khrushev, A.M.Novikov, F.N.Tavildarov, R.A.Chertok, S.G.Xaskin, and A.A.Khrushev. Kogan (until 1972), as a large obstetrician-gynecologist, made a significant contribution to the development of Obstetrics and Gynecology in the Republic, thanks to the leadership of the department's head during his tenure.

Research Methodology And Epic Analysis.

For many women, motherhood is a wonderful experience; nonetheless, the number of difficulties related with pregnancy is significant in the Republic, as is the high

¹ Ya. N. Allayorov "Akusherlik va ginekologiya" o' quv qo' llanma «O' zzbekiston milliy ensiklopediyasi» Davlat ilmiy nashriyoti Toshkent – 2013 7-b

maternal and infant mortality rate. Because pregnancy is a physiological condition rather than an illness, it does not necessitate treatment. Pregnancy normally lasts 85 percent of the time. Approximately 1600 mothers die every day, with over 500,000 deaths each year; eight million women suffer from pregnancy-related complications each year; millions of women suffer from handicap as a result of pregnancy-related complications. The four major obstetric causes account for 80% of all deaths, yet they can be avoided with simple, effective, and cost-effective measures. The adoption of standards, algorithms produced on the basis of scientific evidence, is the most appropriate for each practicing doctor.

Because anemia is a symptom of many different diseases, the term "anemia" does not denote a specific condition. It's important to distinguish between gidriemia (pseudoanemia in pregnant women, for example) and direct anemia. The absolute amount of hemoglobin in the blood does not vary in anemia, both in the form of elements (erythrocytes, leukocytes, and chromotides), but relative indicators may decrease due to an increase in the amount of liquid part of the blood.

The kind related with iron deficiency is the most common in all types of anemia during pregnancy. This is due to an increase in the Daily need for iron from 0,6 to 3,5 mg, this need is greater than the ability of the microelement to be absorbed from food (1,8-2 mg per day). Iron is spent on the formation of the fetus and placenta.

If anemia persists during pregnancy, it can have serious consequences, in particular:

- The fact that the fetus is exposed to oxygen starvation, this has a negative effect on the brain, especially for normal development;
- Women with severe anemia feel worse during pregnancy;
- The probability of premature birth increases;
- After childbirth, the risk of developing infection is higher.

Anemia in pregnant women must be distinguished from physiological hyperplasia.

The percentage share of hematocrit, hemoglobin, and red blood cells drops in the second example due to a 23-24 percent rise in blood mass.

Hyperplasia is a condition that occurs without symptoms, does not require treatment, and returns to normal within 1-2 weeks of birthing.²

Normative indicators of blood composition in women without Normal pregnancy and pregnancy

Indicator	Not pregnant	Pregnant
Hb, g / l	145-125	105-110
Red blood cells $\times 10^{12} / l$	3.7 ± 0.25	3.25 ± 0.25
Reticulocytes	5-10	10-25
Hematocrit	40-42	33-35
Leukocytes $\times 10^9 / l$	7 ± 3	10 ± 5
Download	300	150
ECHT mm / hour	13-26	50-80

In the treatment of anemia during pregnancy, mainly Vitamin B12 and iron supplements are used. In addition, transfusion of erythrocyte mass can be carried out if hemoglobin is low. In general, the treatment strategy depends on the type of anemia and the severity of the patient's condition.³

- The treatment is done in a fixed environment.
- The diet should be balanced, with enough protein, iron, and vitamins.
- Hemo trans fusion is defined as a sharp violation of hemodynamics, defined as a

²Allayorov Ya.N. "Reproduktiv salomatlik va kontraseptiv texnologiya", «Istiqbol», T., 2005. 2. Allayorov Ya.N. "Akusherlik" "O'zbekiston milliy ensiklopediyasi" Davlat ilmiy nashriyoti, T., 2011.

³ Сборник клинических протоколов по акушерству.

Ташкент, 2019.

fall in hemoglobin content from 70 to 80 g/l, as measured by vital indicators.

- Individual kinds of anemia are treated differently depending on their etiology and pathophysiology.
- Initial bleeding should be stopped in the case of acute postgemorrhagic anemia. Iron preparations are administered after a considerable amount of blood loss.
- Internal iron preparations (hemostimulin, ferroplex, tardiferon) or parenteral iron are used in the pathogenetic therapy of iron deficiency anemia (ferrum-lek, ferbitol, ectofer).
- The injection of parenteral vitamin formulations, often with the addition of coferment \square adenosinekobalamin, is used to treat Vitamin B12 insufficiency. A reticulocytic crisis \square a 20-30% rise in the number of reticulocytes during 5-6 days \square is a good predictor of the success of the treatment.
- Aplastic anemia is treated with blood transfusions, bone marrow transplants, and glucocorticoid and anabolic hormone therapy.
- The major instrument for a balanced and vitamin-rich diet, as well as the use of iron-sparing drugs according to the treating doctor's instructions, is the use of iron-sparing drugs. The daily iron microelement requirement is 20-25 mg.
- The main part of this amount (90%) is the endogenous iron, which is released in the breakdown of red blood cells, and the exogenous iron, which enters with 10% of food products. Women need this microelement more than men because of cyclic blood loss.

The general prognosis of this disease and diagnostic signs can also be specified separately:

- The prognosis for iron deficiency anemia is usually good.
- The prognosis for hereditary hemolytic anemia is determined by the frequency of hemolytic crises and the severity of the disorder.

- Aplastic anemia is a life-threatening hematological condition.
- There has been an increase in the number of pregnant women and women suffering from cardiovascular disorders in recent years, which can be attributed to a variety of factors.
- Guidelines for maintaining pregnancy enlargement; early detection of cardiac disease;
- Women undergoing heart surgery are more likely to have a rise in the number of very ill women who have elected to continue pregnancy on their own or with the approval of doctors, indicating that medical science and practice have succeeded.⁴

Heart activity and blood circulation are easily disrupted during childbirth, especially during the period when the fetus is born, which is linked to heart disorders. Because the neurological and muscular systems are excessively salty when gripping the paddle, heart function is disturbed. A collapse may occur after the birth of the fetus due to a drop in abdominal pressure. Three people will be killed by a lady as a result of a cardiac condition. A pregnant lady with decompensated cardiac porridges can give birth to a miscarriage, and fetal asphyxiation is common during labor. In 75-90 percent of cases, heart porridges are raised as a result of rheumatism, and in 6,5-10 percent of women-three without delivery. How the period of pregnancy, childbirth and passes depends on the form of porous, insufficiency of cardiac activity, the activity of the rheumatism process.⁵



1-picture. Electrocardiogram (ECG) of a woman of 37 weeks of gestational age⁶

An increase in heart output volume is the most major hemodynamic change during pregnancy. Its greatest rise at rest is 30-45 percent of its pre-pregnancy value. This indicator rises in the early stages of pregnancy: it can rise by 15% from the typical cardiac production volume of healthy women who are not pregnant in 4-8 weeks.

According to many writers, the largest rise in cardiac output occurs in 20-24 weeks, 28-32 weeks, and 32-34 weeks. Changes in the status of a pregnant woman's body have a major impact on the amount of cardiac output. The work of the left ventricle increases as cardiac output rises, reaching a peak (26-50 percent) in 33-32 weeks of pregnancy.

Pregnancy is a highly dynamic process; changes in hemo dynamics, hormonal state, and many other physiological parameters occur constantly and gradually in the body of a pregnant woman, sometimes from fullness. In this regard, it is critical to not only correctly diagnose and define the nosological form of heart or vascular disorders, but also to assess the disease's genesis and the cardiovascular system's functioning state.

Furthermore, it is critical to determine the degree of activity of the major pathogenic process (rheumatism, rheumatoid arthritis, thyrotoxicosis, etc.) that has produced cardiovascular damage, as well as to identify focused infection (cholecystitis, tonsillitis). Dental caries, etc.) and other accompanying diseases.

This is a complicated issue that can be resolved in front of a doctor who will determine whether it is feasible to conceive and give birth without jeopardizing the health and life of a woman with cardiovascular disease, but there are still issues that can be

⁴ Ромодановский П.О. Изучение неблагоприятные условия в акушерскогинекологической практике / П.О. Ромодановский, Е. Баринов // Медицинское управление. - 2012. - № 6. - С. 44-49.

⁵ Ya. N. Allayorov "Akusherlik va ginekologiya" o'quv qo'llanma «O'zbekiston milliy ensiklopediyasi» Davlat ilmiy nashriyoti Toshkent – 2013 222-b

⁶ <https://www.emergency-live.com/>

resolved in most circumstances. Your unborn child's life is in jeopardy. The question of pregnancy and fertility should be handled in advance, ideally before marriage, for a woman suffering from cardiovascular disease.

The doctor who performs dispensary monitoring of patients, as well as the treating doctor (ward doctor, family doctor, cardiologist), who continuously watches the patient, both have advantages in resolving this issue. This issue should be decided by the cardiologist in collaboration with the obstetrician-gynecologist in future pregnancy, childbirth, and postpartum periods, and if necessary, experts from other specialities should be consulted.

Although an increase in the strain on the cardiovascular system is physiologically reversible during pregnancy, it causes considerable alterations in hemo dynamics and cardiac activity. It's impossible to analyze the change in hemo dynamics in healthy pregnant women if we don't know about it in cardiovascular disease.

Changes in the mother's hemo dynamics have an unfavorable effect on uterine blood circulation, which can lead to problems in the fetus' development, including congenital heart defects in some situations. It is worthwhile to touch on the pathology of certain cardiovascular diseases and its consequences, which we are talking about in this issue.

Mitral stenosis: the intensity of heart activity in pregnant women increases from 12-13 weeks to a maximum of 20-30 weeks.

Approximately 85% of these people exhibit heart failure symptoms. They usually show or begin to expand between the 12th and 20th week of pregnancy. Hemodynamic recovery begins two weeks after labor during the postpartum period. Physiologic hypervolemia, which leads to pulmonary hypertension, raises the risk of pulmonary edema in patients with mitral stenosis during pregnancy.

At the same time, no method of delivery (obstetric forceps, cesarean section) is effective in preventing pulmonary edema. Mitral Commissioner is the most dependable

technique to achieve a good decision in such circumstances. Depending on the situation, this operation can be recommended in three different ways.

Method of application: an artificial abortion is done, followed by the mitral commissure (after the first menstruation); the second pregnancy can be tolerated after 5-6 months following a successful heart operation.

Method - mitral commissurotomy is performed at any time during the actual pregnancy (with a continuous drug-induced pulmonary edema), but in 24-32 weeks, when there is a risk of spontaneous termination of pregnancy, it is better as a surgical reaction. Trauma, less often (due to insufficient emptying of the uterus).

Method: cesarean section is performed with a sufficient maturity of 30 weeks of gestation of the third fetus, and in one stage (after birth) - mitrissurotomy. During pregnancy, the operation mitral commissurotomy turns out to be more radical due to the greater compatibility of the valve sheets with the decalcification and separation of the subvalvular adhesions.

Mitral insufficiency: It is incredibly easy to get pregnant while you have this disease. Usually results in a natural birth. Pregnancy is challenging and can be complicated by the development of acute left ventricular failure if there is severe regurgitation of Mitral insufficiency and a sudden rise in the left ventricle.

Signs of heart failure develop or appear in such women from the early stages of pregnancy, and are usually accompanied by severe nephropathy with a torpid course. When medical treatment for heart failure is futile, an early pregnancy termination (artificial abortion, a tiny cesarean section) or premature birth is performed through the abdominal cavity, as planned. Subsequently, the patient is recommended surgical treatment of heart diseases⁷.

⁷ Bossemeyer .D. 2000. Steps to Develop Standards. PROQUALI PowerPoint presentation. JHPIEGO Corporation: Baltimore, Maryland. 122

Atrial septal defect: they are often three (9-17%) in adults with congenital heart defects. It manifests itself clinically, as a rule, in the third or fourth decade of life. With this heart defect, the course and outcome of pregnancy are usually without danger. In rare cases, with exacerbation of heart failure, it is necessary to resort to abortion.

Ventricular septal defect: they are less common than atrial septal defect. Most often it is combined with a lack of aortic valve. Pregnant women with a small ventricular septal defect can tolerate pregnancy well, but with the growth of the defect, there is an increased risk of developing heart failure, sometimes fatal. After childbirth, a paradoxical systemic embolism may appear.

Isolated pulmonary stenosis: One of the congenital abnormalities is this one (8-10 percent). Because the volume of circulating blood and cardiac output increase during pregnancy, the condition can aggravate the development of right ventricular failure. Pregnancy and childbirth can be safely continued with mild and moderate pulmonary artery stenosis.

Eisenmeiger syndrome is a type of "blue" birth abnormality. There are substantial defects in the cardiac septum or a large diameter anastomosis between the aorta and the pulmonary artery (that is, interventricular and interatrial septa, with deficiencies of the open arteriosis canal). The thrombosis of the pulmonary artery system, the thrombus of the brain veins, and the lack of blood circulation are all common complications of Eisenmeiger syndrome. With Eisenmenger syndrome, the risk of death for the mother and fetus is very high.

Congenital aortic stenosis can be subvalvular (congenital and acquired), capillary (congenital and acquired) and supra-ventricular (congenital). Pregnant women with small or moderate congenital aortic stenosis tolerate pregnancy well, but the risk of developing subacute bacterial endocarditis in the postpartum period does not depend on the severity of the stenosis.

Aortic coarctation (stenosis of the aortic isthmus). The defect is caused by the

aorta constricting in the Isthmus area (the boundary of the rope and the descending part of the aorta). Aortic coarctation is frequently associated with a bicuspid aortic valve. Cerebral hemorrhage, aortic rupture or rupture, and subacute bacterial endocarditis can all aggravate aortic coarctation. Aortic rupture is the most common cause of death.

Conclusion.

To summarize, the pregnancy process is a complex and responsible state, and there is a danger of developing diseases with a variety of clinical signs and pathologies during this time due to congenital and acquired causes. For its prevention and prophylaxis, it is first necessary to conduct diagnostics using modern medical methods and equipment, as well as to continuously monitor the mother's rational nutrition and daily activities, because prophylactic measures and precautions can not only prevent diseases, but also secondary complications in later stages.

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