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## PERINATAL VIRAL HEPATITIS

**Summary.** In spite of achievements of medicine and constant introduction new medical technology, viral hepatitis is evident reason increasing of the disease and death rate. All over the world occurs growing of the disease this nosology, including amongst women's fertile age and pregnant.

**Key words:** viral hepatitis, pregnancy, vaccination, newborns, jaundice, hepatomegaly.

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## ПЕРИНАТАЛЬНЫЕ ВИРУСНЫЕ ГЕПАТИТЫ

**Резюме.** Несмотря на достижения медицины и постоянное внедрение новых медицинских технологий с целью контроля над инфекционными процессами, вирусные гепатиты являются существенной причиной повышения заболеваемости и смертности. Во всем мире происходит рост заболеваемости этой нозологией, в том числе среди женщин фертильного возраста и беременных.

**Ключевые слова:** вирусные гепатиты, беременность, вакцинация, новорожденные, желтуха, гепатомегалия.

Worldwide, there is an increase in the incidence of viral hepatitis, including among women of childbearing age and pregnant women [1,4]. Despite advances in medicine and the constant introduction of new medical technologies to control infectious processes, viral hepatitis is a significant cause of increased morbidity and mortality. According to scientists, the combination of pregnancy and hepatitis leads to an increased risk of perinatal losses, complications during childbirth and the postpartum period [2,3].

Hepatitis B is a real threat to the life of a woman, fetus and newborn. Deterioration in the second half of pregnancy can be complicated by acute liver failure with encephalopathy and coma with high mortality (outside pregnancy it is 0.4-2%, and in pregnant women it is 3 times higher) [2,5]. Hepatitis B adversely affects the course of pregnancy. Early toxicosis occurs in 35% of women, preeclampsia - in 22% (but not complicated). Premature are 38% of births. Premature termination of pregnancy occurs 3.5 times more often in pregnant women with replicative hepatitis than with integrative hepatitis. The peculiarity of the influence of hepatitis C on the course of the gestational process has not been proven. However, in carriers of antibodies to hepatitis C, the rate of preterm birth is 29% (against 19% in the control group), and the caesarean section rate has reached 42%, with 21% in violation. In women - carriers of hepatitis C, there is a statistically significant increase in the number of preeclampsia and the duration of the anhydrous period (Latt N.C. ET AL., 2000). There is no unanimous opinion on the effect of viral hepatitis on the course of pregnancy, childbirth and the postpartum period. Despite a significant number of studies (Mayer K.-P., 2001; Kharchenko N.V. and others, 2002), pathogenetic factors and mechanisms of dysfunction of vital organs, systems and the “mother-placenta-fetus” complex in women remain undefined who are sick or have had viral hepatitis; ways of predicting and

methods of preventing complications in pregnant women and women in labor with acute and chronic hepatitis have not been developed, therefore, the indicators of healthy mothers, fetuses and newborns have remained consistently low over the past years and significantly negatively affect the frequency and structure of perinatal morbidity. The increase in the number of people infected with hepatitis B and C confirms the urgency of the problem.

**Purpose of the study:** To improve and optimize the system of medical care for pregnant women who have been ill or are ill with viral hepatitis based on the determination of pathogenetic factors of the mechanisms of violations of the function of the vital organs and systems of the pregnant woman and their prognosis during pregnancy and childbirth.

**Materials and methods of investigation:** The diagnosis was made on the basis of anamnesis data, epidemiological analyses, biochemical studies of maternal and fetal blood. Blood test for a marker of viral hepatitis, ultrasound of the liver, spleen. We examined 65 children under 1 year of age and their mothers during pregnancy.

**Results of the study and their discussion:** During pregnancy, women were in the perinatal center of Andijan region with a diagnosis of viral hepatitis. Children from these mothers were observed up to one year. Hepatitis occurs in the I and II trimesters of pregnancy, the probability of disease in newborns was low, but in the III trimester - the risk of disease for offspring was 25-76%, most often born prematurely in a state of hypoxia. In 25% of children, a lag in overall development and a predisposition to various diseases were observed in the future. A characteristic complication of pregnancy was the threat of its interruption (in 53%), premature birth occurred in 36% of women in labor. Postpartum purulent-septic diseases are more frequent due to the suppression of the immune status not only due to pregnancy, but also due to hepatitis, and the activation of bacterial microflora against this background.

12% of children were diagnosed with hepatitis C, 14% - hepatitis B, 10% - hepatitis A, D, E were not detected. The risk of transmission of HCV from mother to fetus is lower than with HBV and is 0.9%, especially with a high level of viremia in the mother.

Among patients, hepatitis B was diagnosed in 10 children whose mothers suffered acute viral hepatitis B during pregnancy with a recovery outcome, in 8 diagnosed with chronic HBV. The reason for referral to the hospital in 7% of newborns was hepatolienal syndrome, intoxication, lag in physical development, changes in the function of the liver, kidneys, detection of HBsAg during examination due to the presence of HBV antigen in the mother during pregnancy. Jaundice was detected in 7%, impaired renal function in 5%. Liver function tests were changed in 7%. When conducting ultrasound of the liver: all patients noted an increase in size, an increase in the echogenicity of the perenchyma.

The course of the disease was severe in 15% of newborns, moderate in 12%. All newborns at birth and on day 5 were examined biochemically and immunologically for the presence of antibodies to the HCV virus, HBV. 100% of cases on the 5th day of life in all newborns from mothers with HCV virus infection persisted. The method of delivery (via the natural birth canal or caesarean section) did not affect the incidence of perinatal infection. Immediately after birth, in 14% of newborns from HCV-infected mothers, maternal antibodies to HCV that cross the placenta were found in the blood serum. In uninfected children, antibodies disappeared within 1 year of life.

Prevention of perinatal hepatitis B was recommended by vaccination of newborns whose mothers have the hepatitis B virus. To increase the effectiveness of the vaccination, it was recommended to administer the vaccine in combination with hyperimmune gamma globulin against hepatitis B.

In order to prevent CH in newborns, hyperimmune T-globulin or a vaccine was administered to them in the first hours of life, with a prevalence of virus carriage in the population of 2% or more. If both HBsAg and HBeAg are

found in the mother, combined active and passive immunization is needed, since the risk of infection of the child increases significantly. In areas with a low level of carriage of HBsAg and HBeAg, if most women carriers of HBsAg have HBeAg antibodies, the use of specific prophylaxis of CH in newborns is inappropriate due to the rare formation of persistent Hbsantigenemia in them. Domestic plasma vaccine against HB causes the formation of anti-HBs in 80% of children after 3-fold application, while the results of the study indicate the effectiveness of the vaccine in preventing HBs antigen carrying. Breastfeeding did not stop, since it is almost extremely rare for the infection to be transmitted through mother's milk.

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