



INFLUENCE OF COVID-19 ON PREGNANCY, LABOR AND THE CONDITION OF NEWBORNS

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Annotation

It has been established that the course of pregnancy in women who have undergone COVID-19 before 12 weeks of gestation is complicated by spontaneous miscarriage, the development of fetal malformations, antenatal fetal death, and every third has a violation of the uteroplacental-fetal circulation. It was revealed that infection with COVID-19 infection in earlier stages of pregnancy leads to the development of fetal growth retardation syndrome in newborns. Since pregnancy and childbirth in our region remain high enough, we continue our research to study the impact of COVID-19 infection on pregnancy, childbirth, and the condition of newborns to develop their management tactics.

Keywords: COVID-19 infection, impaired uteroplacental-fetal circulation, spontaneous miscarriage, fetal malformations, antenatal fetal death, fetal growth retardation syndrome.

Аннотация: Установлено, что течение беременности у женщин, перенесших COVID-19 до 12 недель беременности, осложняется самопроизвольным выкидышем, развитием пороков развития плода, внутриутробной гибелью плода, а у каждой третьей - нарушение маточно-плацентарного состояния. кровообращение плода. Выявлено, что заражение инфекцией COVID-19 на ранних сроках беременности приводит

к развитию синдрома задержки роста плода у новорожденных. Поскольку количество беременностей и родов в нашем регионе остается достаточно высоким, мы продолжаем наши исследования, чтобы изучить влияние инфекции COVID-19 на беременность, роды и состояние новорожденных, чтобы разработать тактику их лечения.

Ключевые слова: инфекция COVID-19, нарушение маточно-плацентарного кровообращения, самопроизвольный выкидыш, пороки развития плода, антенатальная гибель плода, синдром задержки роста плода.

Resume: The novel coronavirus infection (COVID-19) has caused a global public health emergency. The spread of the virus was so lightning-fast that even countries with a high development of medicine found it difficult to fight coronavirus infection.

During the pandemic, there were many studies in the general population, but there were very few results about pregnancy outcomes associated with COVID-19. The WHO report says that patients with coronavirus infection with concomitant diseases have higher risks for adverse pregnancy outcomes. Based on this, it was interesting for us to study the impact of COVID-19 on the course of pregnancy and perinatal outcomes.

Objective: To study the effect of coronavirus infection on pregnancy and perinatal outcomes in women who underwent COVID-19 in the first half of pregnancy.

Materials and Methods: a retrospective analytical study conducted in the maternity complex of the multidisciplinary clinic of the Tashkent Medical Academy.

The age of the examined pregnant women was 18-35 years old. The study included pregnant women who underwent COVID-19 before the 20th week of gestation. All patients were divided into 3 groups: the first group included 44 women who had undergone COVID-19 up to 12 weeks; the second group included 32 women who underwent COVID-19 from 12 to 20 weeks of pregnancy; the third is a control group of 45 healthy women who did not undergo COVID-19 during pregnancy. In the surveyed groups, chronic diseases were identified, such as anemia - (82) 67.7%, urinary tract infections - (35) 28.9%. In (31) 25.6% of

women, pregnancy was complicated by gestational hypertension and in (5) 4.13% - by preeclampsia.

The studies were conducted from November 1, 2020 to January 30, 2021. It was also interesting for us to study the ways of infection with COVID-19. Among those surveyed, (58) 76.31% of patients reported contact with patients diagnosed with coronavirus infection, which is due to the high contagiousness of the virus.

In the course of the COVID-19 disease, (15) 19.7% of patients had an asymptomatic form, (49) 64.5% had a mild form and (12) 15.8% had a moderate disease.

Treatment of COVID-19 infection was carried out on an inpatient basis in (17) 22.39% and in (59) 77.63% on an outpatient basis. In the hospital, treatment was carried out according to the National Protocol for the Management of Patients with Coronavirus Infection. On an outpatient basis, only (16) 27.1% of patients received treatment as prescribed by a doctor, (28) 47.45% of women took medications without consulting a doctor. It was also found that among pregnant women who did not have any complaints and symptoms, in (15) 25.45% of patients IgG (COVID-19) was detected in the blood in regular tests, which indicates an asymptomatic form of the disease.

Results: Based on the study of the course of pregnancy in the patients we examined, it was revealed that every third woman in the first and second groups had a violation of the uteroplacental-fetal circulation, compared with the control group where this complication was found in every fourth. Apparently, this is due to the increased level of fibrinogen, i.e. - hypercoagulability in the blood after a previous infection with COVID-19.

Table 1. Complications during pregnancy

Complications	Group 1: women who have had COVID-19 from the beginning of pregnancy to 12 weeks of gestation	Group 2: women who have had COVID-19 from 12 to 20 weeks of pregnancy	Group 3: healthy women who have not had COVID-19 during pregnancy
Threat of premature birth	(9) 20,45%	(6) 18,75%	(9) 20%
Violation of the uteroplacental-fetal circulation	(14) 31,8%	(9) 28,1%	(11) 24,4%
Spontaneous miscarriage	(7) 15,9%	(3) 9,375%	(5) 11,11%
Fetal malformations	(4) 9,1%	(1) 3,1%	(1) 2,2%
Ectopic pregnancy	(1) 2,27%	-	(2) 4,4%
Antenatal fetal death	(3) 6,82%	-	(1) 2,2%

Infection with COVID-19 before 12 weeks of pregnancy leads to spontaneous abortion in 15.9% of women, while infection at a gestational age of 12-20 weeks is complicated by its termination in 9.37% of women. It should be noted the aggressive effect of the COVID-19 virus on the fetus, which was confirmed in the detection of fetal malformations in 9.1% in the first group and in 3.1% in the second group of women. Antenatal fetal death was also revealed in 6.82% of women who underwent COVID-19 before 12 weeks of pregnancy. Consequently, infection with COVID-19 in early pregnancy is more detrimental to the condition of the fetus.

However, coronavirus infection does not affect the incidence of ectopic pregnancy and the threat of premature birth. They were observed in all groups of women with almost the same indicators.

Table No. 2 Condition of newborns from mothers who underwent COVID-19

Indicators	1 st Group	2 nd Group	3 rd Group
APGAR (0-3)	(2) 4,54%	(1) 3,125%	(3) 6,67%
Fetal growth retardation syndrome	(8) 18,2%	(4) 12,5%	(3) 6,67%

Noteworthy is the fact that in newborns from mothers who had coronavirus infection up to 12 weeks, fetal growth retardation syndrome was observed three times more compared with the healthy group and twice as much as in the second group. When assessing the condition of newborns at birth according to the APGAR scale, complications in the form of asphyxia of newborns of moderate and severe degree were not identified.

Conclusions:

1. It has been established that the course of pregnancy in women who have undergone COVID-19 before 12 weeks of gestation is complicated by spontaneous miscarriage, the development of fetal malformations, antenatal fetal death, and every third has a violation of the uteroplacental-fetal circulation.
2. It was revealed that infection with COVID-19 infection in earlier stages of pregnancy leads to the development of fetal growth retardation syndrome in newborns.



Since pregnancy and childbirth in our region remains high enough, we continue our research to study the impact of COVID-19 infection on pregnancy, childbirth and the condition of newborns to develop their management tactics.

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