



PREGNANCY AND CHILDBIRTH OF WOMEN WHO UNDERWENT COVID-19 IN THE 2ND TRIMESTER OF PREGNANCY

Sharipova M.Sh.

Intern-assistant: The Alfraganus university. Uzbekistan.

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ABSTRACT

As we know, on March 11, 2020, the World Health Organization declared a pandemic of SARS-CoV-2 (COVID-19) coronavirus, and from that day, a new coronavirus pandemic started in all countries. It is a new type of disease whose development, course, clinic and treatment are not yet fully understood, making it difficult to control the disease. A total of 54,482,449 cases and 1,318,612 deaths have been diagnosed, according to data released Nov. 16 by Johnson Hopkins University in the United States. Pregnant women account for 2-5% of cases and the mortality rate is as high as 25% (SSV Russia, May 2020). The highest risk group of pregnant women with COVID-19 billion are additional somatic diseases: cardiovascular diseases, arterial hypertension, chronic lung diseases, bronchial asthma of moderate and severe degree, diabetes mellitus, cancer, obesity (TVI>40), kidney disease, liver disease, AFS. This review explores the modes of action and resistance mechanisms of widely used antimicrobials, as well as the current state of AMR in the most critical resistant bacteria identified by the WHO's global priority pathogens list.

In this review, the complications that occur in women who have had covid 19 in the 2nd trimester of pregnancy and the specific specifics of childbirth are studied.

Introduction: Studies by scientists from Iran, USA and Sweden have shown that COVID-19 is associated with the following clinical signs in pregnant women: fever 87.5%, cough 53.8%. Other symptoms include fatigue, diarrhea, myalgia and sore throat. In turn, obstetric complications: as with all early viral infections, severe complications: intrauterine development, spontaneous abortion, genetic defects; in the second and third trimesters: fetoplacental circulatory failure, polycystic ovary syndrome, premature rupture of the cornea, miscarriage 2%, fetal growth retardation 10%, fetal distress 10.7%, preterm labor 21- 39%



and other obstetric complications Operative delivery rate among COVID infected pregnant women increased by 91% (news.un org.2020.November) Neonatal complications: stillbirth, neonatal death, low birth weight (<2500 fetuses) asphyxia. (<https://www.garant.ru>). Currently, COVID-19 treatment of mild, moderate and severe COVID-19 in all countries is performed according to the standards developed by the world SSV. Pregnant women diagnosed with COVID-19 had the usual symptoms of coronavirus but did not develop specific symptoms. Chinese scientists studied 147 pregnant women infected with COVID-19 and proved that it is not transmitted vertically from mother to child, i.e.: The virus was not detected in cord blood or breast milk (Tatiana Chernyavskaya, Health of the Nation 2020). So far, the coronavirus pandemic has not lost its relevance. The etiology of coronavirus infection coronaviruses are a family of RNA-containing viruses with a diameter between 60 and 140 nm, with Thorn-like projections on the surface that can infect humans and some animals . There are four types of coronaviruses: Alpha -, Beta - Gamma-and Deltacoronavirus. In most cases, the natural hosts of this group of viruses are mammals . Up to 2019, six serotypes of coronaviruses that infect humans and cause respiratory diseases were studied to a large extent. Prior to the development of the SARS epidemic, four coronavirus strains (HCoV-229e, HCoV-OC43, HCoV-NL63, HKU1V) were known to circulate throughout the year, mainly causing mild to moderate upper respiratory tract damage. In the etiological structure of acute respiratory viral infections, coronaviruses of this type occupy the second place (15-30%), second only to rhinoviruses . Epidemiology of coronavirus infection the source of the disease is an infected person, including during the incubation period. This period ranges from 2 to 14 days, with an average of 5 to 7 days. Maximum isolation of the virus from an infected patient occurs in the first three days of the disease, but according to a number of publications, virus isolation can begin two days before clinical symptoms appear (48 hours) . The spread of the virus usually lasts up to two weeks (on average 12 days) with a mild to moderate course of the disease. In severe cases, the release of the virus can be observed for more than two weeks. It is believed that SARS-CoV-2 spreads mainly through asymptomatic carriers . The main transmission routes for COVID – 19 are air droplets, air dust and contacts. 1), but the stool-mouth is also not excluded . A new type of coronavirus infection, as a rule, is transmitted by sneezing, coughing and talking at a distance of less than 1.5–2 m of the source of infection, in addition, the infection is spread through hugs, handshakes, kisses and other options for direct contact with covid-19. Objects contaminated with the Virus, any surfaces, food products can also become a transmission factor . The reproductive rate of Sarskov-2 is approximately 2 to 3: each SARS-CoV-2 carrier is expected to infect two to three individuals in a sensitive population . For comparison, the average value of the index given for seasonal influenza is about 1.3 . Susceptibility to the SARS-CoV-2 pathogen is higher among all age groups, but it is noted that children and young people are less susceptible to the disease, although recently this assumption has raised doubts. Individuals over 65 years of age also belong to the high risk group for infection and unfavorable course of chronic diseases of the cardiovascular system, diseases of the bronchopulmonary system, Diabetes mellitus, oncological pathology, etc. Betacoronavirus is able to infect human hosts through angiotensin-converting enzyme 2 (Ace-2), which acts as a receptor for sarskov-2 . Ace-2 is a membrane-bound protein that is expressed in many human cells, including the respiratory tract, vascular endothelium, kidney



tissue, cardiovascular organs, and intestinal epithelium . C. P. according to. Sodhi, more than 80% of these receptors are clearly expressed on the surface of Type II alveolar epithelial cells and cardiovascular endothelial cells, which determines the weakness of the two main systems of the body (Broncho-lung and cardiovascular). Based on studies of SARS-CoV and MERS-CoV coronaviruses, in 2015 circular bat coronaviruses were shown to have human infection potential using human Ace-2 as a receptor in host cells. Phylogenetic analysis of SARS-CoV-2 shows that the new Betacoronavirus has a Coronavirus-like SARS-CoV receptor binding domain and SARS-CoV-2 also uses Ace-2 as a receptor for Human Cell access . Thus, studies have confirmed that the virus enters the human body, first of all, the mucous membrane of the respiratory tract through the Ace-2 receptor.

Purpose: To study the course of pregnancy and labor, obstetric and neonatal complications in women infected with COVID-19 in the 2nd trimester of pregnancy.

Study Materials: To determine the course and outcome of pregnancy in 48 women infected with COVID-19 control 30, the state of labor and postpartum period, the incidence of obstetric complications.

Study Methods:

Epidemic history. Retrospective analysis: MSCT, radiologic examination, PCR, total blood count, coagulogram, blood sugar level, Prospective analysis: immunoglobulin G/M, coagulogram, OAC, OAM, USG. General clinical examination: general and obstetric examination.

The study was conducted in 48 women who applied to the multidisciplinary clinic of the Tashkent Medical Academy and underwent COVID-19 of different levels in the 2nd trimester of pregnancy. Almost all (95.8%) COVID-19: headaches, rash, loss of smell and taste, cough, fever, hypoxemia (SpO₂ <88%) and pneumonia were observed in 30% of women. Of these, 5 (10.41%) were treated in ICU with a diagnosis of severe COVID-19, of which 3 had risk of preterm labor, 1 had late labor. Admitted to our clinic with the diagnosis. 16 (33.3%) received inpatient and outpatient treatment for moderate COVID-19. Treatment was based on COVID-19 treatment protocol. 27 pregnancies (56.25%) had a mild course. As a complication of COVID-19, 12.5% of the above-mentioned women developed carditis, arrhythmias, 20.8% developed varicose veins, 41% developed gestational hypertension and 2% developed hepatitis of the liver. % By cesarean section, 50% by natural delivery, 6.25% by prenatal fetal death. 14.3% of cesarean deliveries were complicated by uterine atony. 50% of natural births were performed by induction. In 30% of cases, amniotic fluid was pale green in color, complicated by the fact that 2/3 of the placenta did not separate. 83.33% of newborns reached a healthy age, 4.16% of children have congenital pneumonia and 12 children have congenital pneumonia. 5% of our children were born underweight (mean placental size 16-16-2.0 cm). No birth defects were observed in children with congenital malformations. Thirty women in our control group were pregnant women who were not infected with COVID-19. 73.3% of them gave birth naturally and 26.6% by cesarean section. 12% of natural births were by cesarean section. 2/3 of them Placenta was complicated by incomplete detachment, babies were born prematurely, of which 10% were underweight.



Conclusion: Obstetric and neonatal complications are observed in women affected by COVID-19 in the 2nd trimester of pregnancy, especially in women with additional somatic disease, which can also be seen when comparing them with women in our control group.

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