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THE STATE OF THE HEMOSTASIS SYSTEM IN PREGNANT WOMEN WITH RESPIRATORY VIRAL INFECTION

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Abstract: Seasonal viral infections in the process of human civilization manifested themselves through various viral infections. In the XXI century in the history of human, COVID-19 became a global problem and was the cause of a pandemic around the world, and today this virus has become a seasonally aggravated viral infection. The global pandemic of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the cause of coronavirus disease 2019 (COVID-19), has been associated with worse outcomes in several patient populations, including the elderly and those with chronic comorbidities. Data from previous pandemics and seasonal influenza suggest that pregnant women may be at increased risk for infection-associated morbidity and mortality. Physiologic changes in normal pregnancy and metabolic and vascular changes in high-risk pregnancies may affect the pathogenesis or exacerbate the clinical presentation of COVID-19. Specifically, SARS-CoV-2 enters the cell via the angiotensin-converting enzyme 2 (ACE2) receptor, which is upregulated in normal pregnancy. Upregulation of ACE2 mediates conversion of angiotensin II (vasoconstrictor) to angiotensin-(1-7) (vasodilator) and contributes to relatively low blood pressures, despite upregulation of other components of the renin-angiotensin-aldosterone system. As a result of higher ACE2 expression, pregnant women may be at elevated risk for complications from SARS-CoV-2 infection. Upon binding to ACE2, SARS-CoV-2 causes its downregulation, thus lowering angiotensin-(1-7) levels, which can mimic/worsen the vasoconstriction, inflammation, and pro-coagulopathic effects that occur in preeclampsia. Indeed, early reports suggest that, among other adverse outcomes, preeclampsia may be more common in pregnant women with COVID-19. Medical therapy, during pregnancy and breastfeeding, relies on medications with proven safety, but safety data are often missing for medications in the early stages of clinical trials. We summarize guidelines for medical/obstetric care and outline future directions for optimization of treatment and preventive strategies for pregnant patients with COVID-19 with the understanding that relevant data are limited and rapidly changing.

Since the possibility of complete elimination of seasonal viral infections has not been discovered, much remains to be learned about the impact of viral infections on the course of pregnancy, given the incomplete study of the

development of possible complications, it is necessary to study more deeply many aspects of the influence of seasonal viral infections on pregnancy, as well as on perinatal and neonatal outcomes.

Keywords: seasonal viral infections, pregnancy, gemostasis, newborns, trombosis. When there are found a mixed variety viral infections, this condition can give rise to a serious problems. One of this is SARS-CoV-2. However, drudge forms ma contribute to a sharp respiratory distress syndrom and it should require to continue a treating process in the therapy [1, 4]. Drudge forms are connected with changing process in coagulation, especially it is characterized rising quantity of D-dimer and fibrinogen. That's why this case can increase the risk of thrombosis, namely thromboembolia of pulmonic arteria. We have a few information about the impact to the pregnant women, even there are another forms of this infection, (SARS) and (MERS) [2, 5].

A natural physiological changes, can give rise to the gypercoagulation in the pregnancy period. This is combined a various factors, for exaample, going up the quantity of blood parts.(VII, VIII and X factors; fon Villebrand (vWF) factors; D-dimer; C-reaktiv protein and fibrinogen) are connected in pregnancy women. There will increase the number of inhibitor in the way of. Anatomic changes plays a great rol in pregnancy period, being blocked blood circulation in uterus can give rise to going down rculation on foot. This condition can contribute to blocking process on blood and can appear thick residue [2, 3]. Invasion of endothelial cells by SARS-CoV-2 virus leads to damage of endothelial cells, impairment of fibrinolitic function, as a result formation of blood clots and release of large amount of vWF factor. The loss of the protective endothelium and consequent weakening of the clotting system results in a hybercoagulable state. Some seasonal viral infections have also been found to be directly associated with increased fibrin accumulation within the vessel and,as a result increased blood viscosity.These data confirm that viral infections are a risk factor for the development of thromboembolism [1, 3, 4].

The purpose of the study. Assessment of the state of the hemostasis system in pregnant women with seasonal viral infection.49 pregnant women who were hospitalized in a special materity compex in Samarkand region due to seasonal viral infections were eexamined.General examinations, special obstetrics and additional(general blood analysis, coagulagram, C -reactive protein, prothrombin time, D-dimer, fibrinogen,UTT of small pelvic organs and according to the instructions , MSCT -test chest)were used. Out of49 pregnant women 4 (8.2%) were in the I trimestr of pregnancy, (22.4%) were in the II trimester, and 34 (69.4%) were in the III trimester of the pregnancy. It should be, noted that the main reasons for hospitalization in the first two trimesters of preganancy were related viral infections. The most common symptoms observed were fever, malaria(55.1) and cough (59.2). In tge third trimester of pregnancy, the reasons for hospitalization were obstetric instructions and childbirth. The following comorbid

conditions were observed during hospitalization in 11/49(16.3%) patients in this study. The most common were anemia (96%), arterial hipertension(6.1%),and pyelonephritis(16.3%). During the study, it was found that 65.3%of pregnant women developed pneumonia outside the hospital, but 28.6% of them did not have clinical signs of pneumonia. In these women, pneumonia was diagnosed during UTT or MSCT examinations. In the remaining 36.7&of pregnant women, the most common symptoms of community-acquired pneumonia were high body temperature, followed by cough and shortness of breath. In general blood analysis, 41 of 49 pregnant women (83.7%) had lymphopenia significant tthrombocytopenia and significant leukopenial. Thrombocytopenia nd significant leukocytosis were observed in 2 (4.1%) pregnant women, which indicates the presence of the additional inflammatory process in the pregnant body.Prothrombin times was increased(12.5-14.8 sec)in 38(77.5%)women, and decreased prothrombin time8.3-9s.0secwas observed in 3(6.1%) women. D-dimer level was 0,55±0,03 mkg/ml in 4 women in the I trimester of pregnancy 1,4±0,04 mkg/ml in 7(14.3%) of 11 women in the II trimester of pregnancy, and 2 was 1,7±0,02 mkg/ml and 13 (26.5%) of 34 pregnant women in the III trimester of pregnancy had a D-dimer index of 3.3+0.5 mkg/ml and the remaining 11(22 in 4%) it was observed that the D-dimer indicator was within the normal range according to the gestation period. Fibrinogen index was (7.0+0.6g/l) in all pregnant women in the first trimester of pregnancy. Fibrinogen index (8.0+0.5g/l) was not significant different in our women in the II trimestes of pregnancy. In 65.3% of our patients with pneumonia outside the hospital, the AQTV indicator was normal (23-38 sec).

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