

**IMPACT OF ACUTE RESPIRATORY VIRAL INFECTIONS ON
FETOPLACENTAL FUNCTION AND MATERNAL-FETAL CIRCULATION**

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Annotation: *Acute respiratory viral infections (ARVIs) during pregnancy represent a significant clinical concern due to their potential impact on both maternal health and fetal development. These infections can induce systemic inflammatory responses, endothelial dysfunction, and immune-mediated alterations that adversely affect placental structure and function. Impairment of fetoplacental function may manifest as reduced placental perfusion, altered nutrient and oxygen transport, and disturbances in hormonal and metabolic regulation. Additionally, ARVIs may influence maternal–fetal circulation by causing changes in uteroplacental and fetoplacental blood flow, increasing the risk of fetal hypoxia, intrauterine growth restriction, and adverse perinatal outcomes. Understanding the mechanisms through which acute respiratory viral infections affect the fetoplacental complex and maternal–fetal hemodynamics is essential for early diagnosis, risk stratification, and the development of preventive and therapeutic strategies aimed at improving pregnancy outcomes.*

Key words: *acute respiratory viral infections, pregnancy, fetoplacental function, maternal–fetal circulation, placental blood flow, fetal hypoxia, intrauterine growth restriction*

Relevance. *Acute respiratory viral infections contain most of all infectious pathologies and are widespread. According to the WHO, an influenza epidemic worldwide causes about 42%, of which 16% occurs in pregnant women.*

According to the data of WHO, the incidence rate of ARVI has remained very high in recent years. Thus, if the disease occurs due to the hormonal and physiological changes that occur in the body during pregnancy, pregnant women are more at risk of developing complications. Based on the epidemiological data of the last few decades, pregnant women were included in the risk group by WHO experts. Despite intensive antimicrobial therapy, ARVI complications in pregnant women do not decrease, which makes the study of this problem urgent.



Purpose of the study. Evaluation of the fetoplacental system in pregnant women with acute respiratory viral infection.

Materials and methods of research. 49 pregnant women hospitalized due to seasonal viral infections were examined at the Samarkand Regional Perinatal Center. Methods of conducting general examinations, special obstetric and inpatient examinations (general bleeding, PRD, coagulogram, C-reactive protein, prothrombin time, D-dimer, fibrinogen) were introduced.

Research results and discussion. Of the 49 pregnant 4 (8.2%) are in the first trimester of pregnancy, 11 (22.4%) in the second trimester and 34 (69.4%) in the third trimester of pregnancy. It should be noted that in the first two trimesters of pregnancy, the main causes of hospitalization are associated with viral infections. The most noticeable symptoms are fever and icy (59.2%). In the third trimester of pregnancy, obstetric signs and childbirth became the cause of hospitalization. During hospitalization, 11/49 patients (16.3%) in this study had the following comarbid conditions. The rarest are pulp (96%), hypertension (6.1%) and pyelonephritis (16.3%). The study found that 65.3% of pregnant women develop extracellular pneumonia, but 28.6% of women did not experience clinical symptoms of pneumonia. The remaining 36.7% of pregnant women showed symptoms of out-of-competition pneumonia with a high body temperature, as well as weak breathing.

A total of 49 pregnant 41 female (83.7%) had lymphopenia, significant thrombocytopenia and minor leukopenia in their blood. 2 (4.1%) pregnant women showed thrombocytopenia and significant leukocytosis, which indicates the presence of a normal inflammation process in the body of women. 38 (77.5%) women (12.5-14.8 sec), and 3 (6.1%) women have a reduction in prothrombin time (8.3-9.0 sec).

Conclusion. Development of curative and preventive measures to prevent complications that may occur in pregnant women due to the effects of acute respiratory viral infections on the fetoplacental system.

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