

for timely diagnosis and the choice of the right management tactics, but also to the prediction of possible complications. Assessing the growing proportion of patients with CHF in the population and the socio-economic damage, it is necessary to consider the modernization of the approach to diagnosis and treatment, and most importantly, the prevention of these clinical situations.

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CLINICAL CASE OF SEVERE CORONAVIRUS INFECTION COMPLICATED BY BILATERAL HOSPITAL-ACQUIRED PNEUMONIA IN A PREGNANT WOMAN

This article presents a clinical case of a severe course of COVID-19 in a 27-year-old pregnant woman. The infectious process was complicated by bilateral out-of-hospital pneumonia. A woman was admitted to the obstetric infectious disease unit at 39 weeks gestation, complaining of an attack-like cough with scanty sputum, a feeling of tightness in the chest, runny nose, weakness, increased body temperature up to 37.9 C. SARS-Cov-2 virus RNA was diagnosed by PCR. The condition progressively worsened overnight, the pregnant woman was transferred to non-invasive ventilation in the intensive care unit, with lung parenchyma lesions up to 50%.

Against the background of progressing respiratory failure, acute respiratory distress syndrome woman delivered by emergency cesarean section at 39 weeks' gestation. A live, premature baby girl was born, without asphyxia. The patient's condition remained extremely serious. On the 2nd day of the postoperative period sepsis was diagnosed, the lesion of lung parenchyma amounted to 75-100%.

Multicomponent therapy, including recombinant monoclonal antibodies to the interleukin-6 receptor, resulted in improvement.

Keywords: COVID-19, pregnancy, respiratory failure, community-acquired pneumonia, multicomponent therapy

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Introduction. The global pandemic of a novel COVID-19 coronavirus infection caused by SARS-CoV-2 virus has had a strong impact on the whole world [3, 4, 8]. Since then, a tremendous breakthrough in science has been

made and new diagnostic techniques, prevention, treatment and organizational approaches have been developed in the management of individuals with COVID-19 [5,9].

COVID-19 infection is characterized

by the development of complications from various organs and systems [10,13,14]. Respiratory, cardiovascular, digestive and hemostasis systems are quite often affected [6, 7, 11]. Respiratory system lesions are manifested as viral pneumonia with the development of acute respiratory distress syndrome and respiratory failure [15]. The development of respiratory system lesions leads to the phenomena of general hypoxia, in these conditions there is a violation of homeostasis and adaptive processes of the body, which in turn contributes to the development of pathological conditions of other organs and systems [16, 17, 18].

The incidence of COVID-19 in pregnant women has now been shown to be higher than in the population [1,2]. It has been established that due to unique immune characteristics and susceptibility to respiratory pathogens, pregnant women infected with SARS-CoV-2 should be considered a high-risk group for the development of severe disease and mortality. In pregnant women with COVID-19, a sudden development of a critical condition against the background of a stable course of the disease is possible [12].

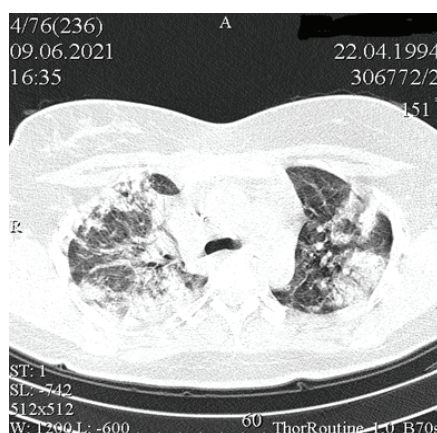
Objective of the study: To analyze a clinical case of a pregnant woman with severe coronavirus infection complicated by bilateral out-of-hospital pneumonia, respiratory failure (RF) of II degree.

Clinical observation: Patient I., 27 years old. The present pregnancy is the second, desired pregnancy. The first pregnancy in 2016 proceeded without complications, ended prematurely by emergency cesarean section due to ineffective treatment of obstetric failure.

Course of the present pregnancy: moderate toxicosis in the first half of the pregnancy, treated as an outpatient; The second half of pregnancy proceeded smoothly. The total weight gain during pregnancy amounted to 6 kg.

The pregnant woman applied on 25/05/2021 at 17h30m to the obstetric infectious disease department of the perinatal center of the Yakutsk Republican Clinical Hospital complaining of an attack-like cough with scanty sputum, a feeling of compression in the chest, runny nose, weakness, increased body temperature up to 37.9°C. SARS-CoV-2 RNA was detected by PCR. She was diagnosed with COVID-19, of moderate severity. Pregnancy 39 weeks, cephalic presentation. Aggravated obstetric history - uterine scar.

From the anamnesis: considers herself sick for seven days, when pain in the throat, dry cough appeared. Got sick af-



Computed tomography of lungs on the 12th day of the disease. Diffuse lung lesion by type of frosted glass and consolidation combined with reticular changes. Involvement of lung parenchyma more than 80%

ter coming into contact with a sick friend.

On admission, the condition is moderately severe, consciousness is clear. The physique is hypersthenic. The skin and visible mucous membranes are unchanged. Lymph nodes are not enlarged. Body temperature 36.0°C, weight 81.4 kg, height 161cm, BMI - 31.4. Heart tones are rhythmic, no murmurs. Heart rate 125d/min, BP 85/66mmHg. Respiration in the lungs is rigid, no rales, HR 22 per min, SpO2 94% (on atmospheric air), 97% (with oxygen support).

CT scan shows signs of interstitial bilateral pneumonia COVID 19. Involvement of lung parenchyma 25-50%- CT-2.

On examination in the general blood test leukocytes $8.34 \times 10^9/l$, lymphopenia $0.75 \times 10^9/l$, Increased hepatic transaminases ALT 51.2, AST 30.7, increased LDH (lactate dehydrogenase) up to 585ed/l, C reactive protein 88.4 mg/l, urinalysis without features.

According to version №11 of the temporary methodological recommendations dated 07.05.2021 "Prevention, diagnosis and treatment of New coronavirus infection COVID-19", Antiviral and antibacterial therapy: Interferon alpha 2b 3 capsules 5 times a day nasally, Favipiravir 1800 mg 2 times a day orally, then 800 mg 2 times a day thereafter; Ampicillin and sulbactam 1.0g+0.5g x 3 times a day intravenously from 26/05/21, Azithromycin 0.5 g once a day intravenously from 27/05/21 (№3). Anticoagulants in therapeutic dose - Enoxaparin sodium 0.5 g 2 times a day since 25/06/21 were prescribed. The patient received glucocorticosteroids for preemptive purposes: dexamethasone 12 mg intravenous drip 2 times a day since 26/05/21, methylprednisolone 125 mg 4 times a day intravenously from

27/05/21. Humidified oxygen insufflation was performed at a rate of 10L/min, prone - position on the side for at least 16 hours per day.

On the 2nd day of treatment the pregnant woman with worsening condition was transferred to non-invasive artificial lung ventilation (NIV) by Hamilton C2 apparatus in NIV mode with the parameters of support 17cm of water column, taking into account the level of saturation and blood gases.

During 3 days of intensive treatment the condition continued to worsen, respiratory failure increased, blood oxygen saturation decreased to 88%. Taking into account the grave condition of the pregnant woman, the lack of effect from the therapy, and her premature gestational age, she was delivered by cesarean section. The operation was performed under spinal anesthesia. A live premature baby girl was extracted, without asphyxia, Apgar scale 8-8 points, with a weight of 3366g, length 56cm. Blood loss in labor amounted to 600ml. After delivery, the woman's treatment continued in the intensive care unit. The patient was on non-invasive artificial ventilation for 5 days. The child was observed in the isolation ward, PCR for COVID 19 was negative, discharged home on the 11th day of life.

Against the background of intensive therapy, the patient's condition remained extremely severe. Daily monitoring of blood counts reflected a progressive increase in leukocyte counts to $27.77 (10^9/L)$, thrombocytosis up to $445 (10^9/L)$, increased CRP level up to 114.7 mg/l, Increase in lactate dehydrogenase to 1120 units/l, interleukin-6 to 27 mg/ml, of presepsin to 732 pg/ml. Sepsis was diagnosed on the 2nd day of the postoperative period, Immunovenin 25ml intravenous micro-jet via syringe pump and Fluconazole 250mg intravenously were added to the treatment. The control computed tomography of lungs on a series of slices revealed negative dynamics: involvement of lung parenchyma 75-100% (photo №1)

During treatment, telemedicine consultation with the Federal State Budgetary Institution "National Medical Research Center of Obstetrics, Gynecology and Perinatology named after Academician V.I. Kulakov" of the Ministry of Health of the Russian Federation was repeatedly conducted. A drug has been prescribed for treatment Ilcira (levilimumab) 324 mg intravenous drip once 28/05/21 change of antibacterial therapy to drugs from the group of carbopenems and oxazolidinones - Meropenem 1 gram 3 times a

day intravenous drip since 28/05/21 was carried out, Linezolid 600 mg 2 times a day intravenous drip. Inotropic support on norepinephrine microjet intravenously 0.2mg/hour, restrictive infusion therapy in the volume of 15 ml/kg/day, correction of water-electrolyte balance, protein enteral nutrition were performed.

On the 10th day of the postoperative period, ultrasound examination revealed lochiometra and podaponeurotic hematoma: uterine cavity expansion up to 33 mm, hematoma with dimensions 68x71x60 mm, volume 153cm³. Surgery was performed: opening and emptying of the hematoma of the anterior abdominal wall, vacuum aspiration of the uterine cavity. Blood loss amounted to 200ml. After surgery - additional change of antibiotic therapy to Cefoperazone and sulbactam 2 g. 2 times a day intravenously since 07/06/21, Levofloxacin 500 mg 2 times a day orally. During further inpatient treatment, dyspnea decreased, cough subsided, and independent breathing without humidified oxygen was restored. Multicomponent therapy led to improvement of the condition, normalization of clinical test parameters on the 21st day of the disease. She spent a total of 16 days in the intensive care unit.

On the background of improvement of clinical and laboratory parameters, on the 36th day, in a condition close to satisfactory, with asthenic syndrome, the patient was discharged for outpatient treatment.

Conclusions:

The clinical interest of the observation lies in the extremely severe course of coronavirus infection in a pregnant woman with multiple complications. In case of worsening of the general condition, increasing dyspnea, reasonable and timely delivery was performed by cesarean section, antibacterial drugs from the reserve group and genetically engineered biological agents were used. The woman has a

positive prognosis for further realization of reproductive function.

Delivery at increasing symptoms of respiratory failure, adequate treatment of severe coronavirus infection with total lung damage contributed to the patient's recovery. This clinical case demonstrates the need for an individualized approach in the management of each patient with coronavirus infection.

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