

Case Report

COVID-19 Pregnant Patient Management with a Case of COVID-19 Patient with An Uncomplicated Delivery

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Abstract

Pregnancy has always been a concern in epidemics all over the world. While coronavirus (COVID-19) disease ravages the world, it is a big curiosity how pregnant women will be affected by this disease. There are a few published case series and commentary of COVID-19 occurring during pregnancy. In this study, we discussed how to manage this disease in pregnant women. A 38-week pregnant, 37-year-old woman whose father passed away from COVID-19 admitted to the hospital with dyspnea, nonproductive cough, and fever. She had positive radiological features for COVID-19, and her rapid antibody test was positive. Lopinavir-ritonavir combination and azithromycin treatments were given, and the patient's symptoms regressed with treatment. The patient was taken to cesarean by providing isolation conditions, and she had a healthy baby with an uncomplicated delivery. There are no certain data about whether COVID-19 infection is worse in pregnant patients or not. On the basis of the limited data in the literature, we cannot see intrauterine transmission from infected mother to baby. However, we know that there would be serious pulmonary complications for the infected mother. Fortunately, the severe acute respiratory syndrome coronavirus 2 infection did not progress more severely in pregnant women than in the normal population compared with the previous severe acute respiratory syndrome outbreak.

KEYWORDS: COVID-19, Turkey, pregnancy, uncomplicated delivery

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INTRODUCTION

There is a global health problem affecting nearly 4 million people, due to the new coronavirus (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]), which started in Wuhan, China, in December 2019. The disease spread rapidly in China and other countries and progresses with pneumonia [1, 2]. The disease caused by this virus has been named as COVID-19 and has been declared as a pandemic by the World Health Organization. Pregnant women have also been reported to be infected with COVID-19, which is similar to severe acute respiratory syndrome (SARS), in this outbreak. Pregnant women are more susceptible to coronavirus infection owing to pregnancy-induced immunosuppression and are at high risk for poor perinatal outcomes [3, 4].

The immune system is weakened during pregnancy. In the intrauterine process, the fetus is also vulnerable to infections, because it has not yet completed its immunological development. Even a simple infection that a normal person can overcome easily can become fatal during pregnancy or the neonatal period owing to weakness in the immune system.

It is not clear how this disease will progress during pregnancy. To share experience in pregnant patient management, herein we present the case of a 38-week pregnant woman with COVID-19, who was followed up in our clinic.

CASE PRESENTATION

A 38-week pregnant, 37-year-old woman was admitted to hospital with dyspnea, nonproductive cough, and fever. Computed tomography (CT) of the thorax was performed on the patient because of a suspicious infiltration on the chest radiograph (Figure 1). CT showed ground-glass opacities in the bilateral basal regions (Figure 2). Then, the patient was referred to our clinic. Body temperature was 38.7 °C, oxygen saturation was 97%, and other vital signs were normal. In the laboratory tests, hemogram parameters were normal, C-reactive protein was 32 mg/L, and D-Dimer was 1.15 mg/L FEU (Fibrinogen equivalent units). It was learned that the father of the patient was treated in the intensive care unit and died of COVID-19 pneumonia a week ago. The patient who had typical symptoms but negative Polymerase Chain Reaction (PCR) test result was hospitalized as having COVID-19 pneumonia. The patient tested positive in the rapid

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antibody test. Lopinavir–ritonavir combination and azithromycin treatments were given, and the patient's symptoms have regressed with treatment. Fever was under control in the first three days, and cough subsided. Any other radiologic imaging was not performed because of pregnancy. A nonstress test was performed daily to assess the baby. The patient had consultations at the obstetrics and gynecology department. And she was taken to cesarean by providing isolation conditions. The healthy baby was followed up in the neonatal intensive care unit until the PCR test results were obtained. After the baby's PCR test and the mother's control PCR tests were negative, they were discharged with 14 days of isolation at home.

For this study, informed consent was obtained from the patient.

DISCUSSION

Pregnancy is an immune-suppressed period. Pregnant women are more likely to have respiratory infections because of physiological changes in the respiratory system. In previous virus outbreaks (SARS-CoV and Middle East respiratory syndrome coronavirus), pregnant women were found to be at a higher risk for morbidity and mortality than the normal population [5]. There are no certain data about whether COVID-19 infection is worse in pregnant patients [6]. According to a study of 38 pregnant patients with COVID-19 in China, no cases had severe postnatal disease or mortality [7]. Fortunately, the SARS-CoV-2 infection did not progress more severely in pregnant women than in the normal population compared with the previous SARS outbreak [8-10].

Care of pregnant women and newborns should be managed together and correctly in this process. Radiation exposure of the fetus should be important for the clinician, but radiological examinations (chest radiography, thorax CT, etc.) should be used as in nonpregnant adults. It is recommended that the safer lopinavir–ritonavir combination is preferred for antiviral treatment in pregnant women [11]. When secondary bacterial infections are suspected, antibiotic therapy should be ordered additionally. In the case of respiratory failure, high-flow oxygen should be applied first; mechanical ventilation and extracorporeal membrane oxygenation should be considered when necessary.

In addition, adequate hydration, nutritional support, and keeping the electrolytes in balance are other important points.

MAIN POINTS

- The immune system is weakened during pregnancy and at high risk for viral infections.
- Clinical manifestations of COVID-19 in pregnant women are similar to those in nonpregnant individuals.
- The pregnant women, who are a sensitive population in the COVID-19 pandemic, do not have an increased risk than the normal population. Pregnancy does not appear to increase susceptibility to infection, and most infected mothers recover without complications.

Owing to COVID-19, obstetric management of the pregnant woman should not be delayed. There are not enough data about intrauterine vertical transmission or vertical transmission during delivery. For this reason, the delivery method should be decided with obstetric indications [12]. Although there is no evidence using corticosteroids in COVID-19, it has been reported that steroids can be used for the respiratory development of the fetus in pregnancies requiring early termination [11].

A healthy baby who was born vaginally from the COVID-19-positive mother has been previously reported [9]. Again, only two of the 39 babies born from 38 sick mothers in China contracted COVID-19, one of whom tested positive on the 17th day after birth; it was learned that he had close contact with the positive mother and the caregiver [7]. Although there is no transmission with breast milk during breastfeeding after birth, it is recommended to isolate the infected mother and healthy baby for 14 days because of the risk of close contact and droplet infection and then breastfeed with the use of a mask [8].

It is pleasing that pregnant women and newborns, who are a sensitive population in the COVID-19 pandemic, do not have an increased risk for respiratory complications and mortality so far. In addition, more case series are needed in this respect.



Figure 1. Chest radiograph shows suspicious infiltration on the right side

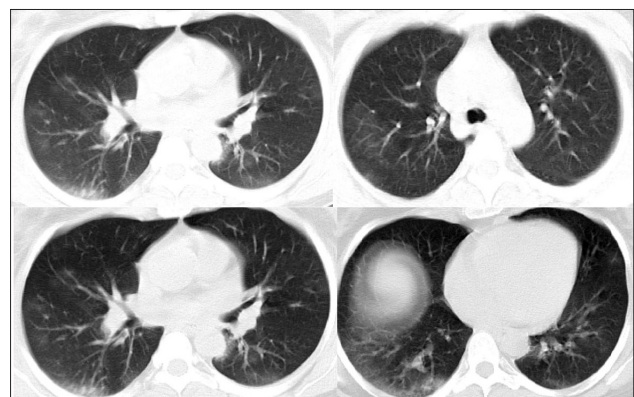


Figure 2. Thorax CT shows ground-glass opacities in the bilateral basal regions

Informed Consent: Written informed consent was obtained from the patient who participated in this case.

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