Spontaneous resolution of pleural effusion after COVID in second trimester of pregnancy

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Background::

•COVID-19 has become a worldwide pandemic. Under such circumstances pregnant women are also significantly affected. Pregnant women are at increased risk of severe illness with COVID-19. Severe illness means that they might need to be hospitalized, placed in an intensive care unit, or be placed on a ventilator. Pregnant women with COVID-19 are more likely to deliver preterm. They might also be at increased risk of problems such as stillbirth and miscarriage. Pregnant women who have other medical conditions, such as diabetes, also might be at even higher risk of severe illness due to COVID-19. Therefore, during pregnancy, there is a need for rapid assessment of the maternal lungs in patients with suspected COVID-19 infection

Case report:

•We report a case of COVID-19 infection in a pregnant 37 year old patient, gravida 2 presented in the 13th week of gestation. She reported receiving the second dose of an inactivated vaccine 18 months earlier. She was also diagnosed with Covid-19 infection 12 months earlier. In this case report, our patient presented with complaints of fever, cough and dyspnea. Her PCR COVID test was positive. After 6 days she had severe pain in the left hemithorax. The patient had high laboratory inflammatory parameters. The fever and cough subsided a few days later but the pain remained for the next period. Lung ultrasound showed left pleural effusion with mild right pleural effusion. Fetal ultrasound was normal for the gestational week. The patient was treated with antibiotics and low molecular heparin. Due to an onset of tachycardia, she had an echocardiography, which showed normal results. The pleural effusion was closely followed up with pulmonary ultrasound by pulmonologist for the following two months until its' complete reabsorption. The pregnancy is currently normal and will be closely monitored until term.

Discussion:

•Pleural effusion is rarely seen in COVID-19 infection, its presence should be suspected and interpreted carefully. Severe pneumonia and respiratory distress syndrome are major causes of death in Covid-19 patients. Immediate diagnosis of Covid-19 during pregnancy is essential to prevent major risks to the maternal health and adverse complications to the fetus such as miscarriage, preterm birth and PPROM. Computed tomography (CT) represents the gold standard to assess the evaluate lung lesions, it is not an ideal monitoring tool for pregnant patients because of the risk of ionizing radiation to the fetus as well as the possible risk of spreading the infection. Lung ultrasound (LUS) offers a convenient, inexpensive and radiation-free monitoring tool at the bedside. Lung ultrasound examination has been demonstrated to be an accurate imaging method to detect pulmonary and pleural conditions in pregnancy.

•**Conclusion**: SARS-CoV-2 infections in pregnancy have been associated with increased risk of admission to hospital. The prognosis for pregnant women with SARS-CoV-2 is good, even in the absence of specific antiviral treatment. Pleural effusion is a rare complication of COVID-19 infection, however its presence should be suspected and treated carefully. Lung Ultrasound Findings can reduce the use of chest CT and protect fetuses from the risk of radiation damage, and it should be favored in diagnosis, in case the clinical condition of the patient allows it.