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ACUTE RESPIRATORY DISTRESS SYNDROME IN PREGNANT WOMEN: ETIOLOGY, PATHOGENETIC AND CLINICAL FEATURES

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Acute respiratory distress syndrome (ARDS) is a rare but severe condition occurring during pregnancy and the peripartum period. It may result from pregnancy-associated risk factors or from the heightened susceptibility to respiratory complications during gestation. Diagnosis is based on clinical presentation, arterial blood gas analysis, chest X-ray, and computed tomography findings. Management of ARDS in pregnancy involves a multidisciplinary approach including lung-protective ventilation (lower tidal volumes, higher respiratory rates, and positive end-expiratory pressure titration), maintenance of negative fluid balance, use of neuromuscular blocking agents, prone positioning, inhaled nitric oxide, high-frequency oscillatory ventilation, extracorporeal membrane oxygenation (ECMO), extracorporeal carbon dioxide removal, corticosteroid therapy, and supportive care. AT the First University Clinic of TSMU during the COVID-19 pandemic (2020–2022), 8055 patients were treated, and 6.55% of cases occurred 6.55%. Among them are presented 1841 pregnant women, only 52 patients (2.8%) required intensive or critical care, due to complications such as pneumonia leading to acute respiratory failure, ARDS, and 8 deaths (0.7%) were recorded.

Major risk factors included obesity, age>35 years, and pre-existing comorbidities. Complications observed among pregnant women with COVID-19 included pneumonia, pulmonary fibrosis, acute respiratory failure, respiratory distress, multiple organ dysfunction, cytokine storm, and sepsis. The disease course was mild to moderate in most cases, while severe cases accounted for 3.5%. Fatal outcomes were associated primarily with the development of ARDS and pulmonary fibrosis. Cesarean delivery was performed based on predictors of disease progression. Only one case of vertical transmission of SARS-CoV-2 was identified. During 2022-2024, 30 pregnant women were admitted with viral pneumonia complicated by acute respiratory failure. Among them, 17 were confirmed to have influenza A virus infection by PCR testing. None of these patients developed ARDS, and no deaths cases occurred. The favourable outcomes were attributed to the timely inclusion of antiviral agents in combination with pathogenic and symptomatic therapy.

Keywords: Acute respiratory distress syndrome, pregnancy, arterial blood gas, corticosteroids, SARS-CoV-2.