Pregnancy Outcomes in Women With History of COVID-19 in Alexandria, Egypt

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Abstract : Introduction: with the inial appearance in Wuhan, China, in December 2019, the coronavirus disease-related respiratory infection (COVID-19) has rapidly spread among people all over the world. The WHO considered it a pandemic in March 2020. The severe acute respiratory syndrome coronavirus (SARS-CoV) and the Middle East respiratory syndrome coronavirus (MERS-CoV) outbreaks have proved that pregnant females as well as their fetuses are exposed to adverse outcomes, including high rates of intensive care unit (ICU) admission and case fatality. Physiological changes occurring during pregnancy such as the increased transverse diameter of the thoracic cage as well as the elevation of the diaphragm can expose the mother to severe infections because of her decreased tolerance for hypoxia. Furthermore, vasodilation and changes in lung capacity can cause mucosal edema and an increase in upper respiratory tract secretions. In addition, the increased susceptibility to infection is enhanced by changes in cellmediated immunity. Aim of the work: to study the effect of COVID-19 on pregnant females admitted to El-Shatby Maternity University Hospital regarding maternal antepartum, intrapartum and postpartum adverse effects on the mothers and their neonates. Method: A retrospective cohort study was done between October 2020 and October 2022. Maternal characteristics and associated health conditions of COVID-19 positive parents were investigated. Also, the severity of their conditions and me of infection (first or second or third trimester)were explored. Cases were diagnosed based on presence of symptoms suggestive of COVID-19, laboratory tests (other than PCR) and radiological findings.all cases were confirmed by positive PCR test results. Results: The most common adverse maternal outcomes were pre-term labor (11.6%) followed by premature rupture of membranes (5.7%), post-partum hemorrhage (5.4%), preeclampsia (5.0%) and placental abrupon (4.3%). One sixth of the neonates of the studied paents were admied to NICUs and 6.5% of them had respiratory distress with no neonatal deaths. The majority of neonates (85.4%) had a birth weight of 2500- 4000g (normal range). Most of the neonates (77.9%) had an APGAR score of equal or more than 7 in 5 minutes. Conclusion: the most common comorbidity that might increase the incidence of COVID-19 before pregnancy were diabetes, cardiac disorders/ chronic hypertension and chronic obstructive lung diseases (non-asthma). During pregnancy, anemia followed by gestational diabetes and pre-eclampsia/gestational hypertension were the most prevalent comorbidity. So, severity of infection can be reduced by good antenatal care.