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EDITORIAL

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Pregnancy and COVID-19: What are the prospects?

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The SARS-COV-2 was declared pandemic by World Health Organization (WHO) in March 2020 [1], little is known about this new disease, it's consequences still remaining a question mark to the science, even more in the case of its impacts in the health of pregnant women (PW) [2], especially with regard gestational immune-adaptive process [3]. The initial symptomatic is similar to a common cold, although it can evolve, more frequently, with poor evolutuion, which can lead patients to the intensive care units mainly because of systemic inflammation [4].

Cross section studies indicates that complication during pregnancy and labor are more related with pre-existing and no controlled comorbidities than the viral infection itself [5,6]. Verde et al. describes a 156-fold increase in the risk of maternal mortality in the presence of prior comorbidity. Morbidity rates are directly associated with severe cases of diseases that required admission to the maternal ICU [7], occurring in a prevalent way in patients with severe pneumonia [5]. In PW, the most common symptoms observed were: fever, cough, chest pain, dyspnea, myalgia and gastrointestinal symptoms [1,8]. Toro et al. in their meta-analysis identified that clinical features in PW infected with COVID-19 appear similar to those in non-pregnant women, generally showing good prognosis [9].

Inflammatory states, such as those caused by COVID-19, have been associated with cytokine levels, pregnancy outcomes, and risk of preterm birth [10]. The balance of pro and anti-inflammatory cytokines enables pregnancy progression, however the systemic inflammation caused by COVID-19 can lead miscarriges, preterm delivery or even impossibility of the semi-allograft fetus implantation [3]. Although, there have been cases reports of premature labor due to COVID-19 infection, this relation remains uncertain. Tanacan et al. demonstrates that pregnancy complications and inflammatory markers such as TNF-α, INF-γ and IL-1, IL-4, IL-10, may be increased in PW with COVID-19, profile that relates to harmful effects, to pregnancy course, especially in miscarriages [11]. A study evaluated clinical and laboratories conditions in PW infected with SARS-COV 2 with an average age of 26,5 years, do not detected a significant increase of preterm delivery neither a need for caesarean section due to COVID-19, no rise in risk of abortion was seen, also in this study, vertical transmission (mother-to-child transmission) was not observed [5]. However, Verde et al. demonstrated a vertical transmission rate of 25% others cases reports have already shown viral genetic material in women´s placenta infected by SARS- COV-2 [12,13], suggesting that vertical transmission is a possibility in PW with COVID-19.

The Center of Disease Control and Prevention - CDC has authorized the vaccination of PW, even after they were excluded of phase three COVID-19 vaccine trials [14]. Collier et al. established in an exploratory, descriptive, prospective cohort study, that COVID-19 mRNA vaccine application was immunogem in pregnant women, and vaccine-elicited antibodies were transported to infant cord blood and breast milk, evidencing the importance of the vaccination in this group. Due to mentioned lack of conclusive literature, there is a need for further studies seeking to enlighten the relation between SARS-COV-2 infection and its impacts on pregnancy aiming to bring more effective prevention and management during the progress of this pandemic. The vaccination is an efficient and secure mean to prevent covid 19 and its bad outcomes in pregnant women.

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