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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 of 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], particular in with regard gestational immune-adaptive process [3]. The initial symptomatic resembles a common cold, although it can evolves, more often with a bad outcome, which can take patients to Intensive Care Units mainly because of systemic inflammation [4].

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]. La Verde *et al.* describes an increase risk of maternal mortality by 156 times, in presence of previously co-morbidity. The morbidity rates are directly associated to severe cases of illness that required maternal ICU admission [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. i*n his meta-analysis identified that the clinical features in PW infected with COVID-19 seems to similar to non-pregnant women, generally showing goods prognosis [9].

The inflammatory states, such caused by COVID-19, have been associated cytokines levels, pregnancy outcomes and risk of preterm births [10]. The key to pregnancy progress is a balance between pro and anti-inflammatory cytokines, an inflammatory imbalance causes by COVID 19 infection, was been associated to miscarriage, 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 is not clear. 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, this inflammatory profile, is related to a harmful effects, to pregnancy course, especially in miscarriages [11]. A study evaluated clinical and laboratorial 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]. La 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 immunogenic 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 brings 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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