

Comparison of maternal and fetal health outcomes in the epidemic period of covid-19 with the same last year duration in health centers of second largest city of IRAN: a cohort study

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Abstract

Objective: the exact link between COVID-19 pandemic and different adverse outcomes of pregnancy remains unclear. Plus, large-scale research is lacking. In the present study, we aimed to compare the maternal and fetal health outcomes during the COVID-19 pandemic with the same last year duration in Iran. Design: Two retrospective cohorts (pre-COVID-19 and during COVID-19) were studied. The pre-COVID-19 cohort include pregnant women who had given birth between 1 January 2019 and 31 December 2019. The COVID-19 cohort, who had given birth between 1 January 2020 and 31 December 2020. The characteristics of pregnant women before COVID-19 and during COVID-19 pandemic were compared with Fisher's exact test. Uni-variate and multivariate log-binomial regression models were used to determine the risk ratios of the impacts of the COVID-19 pandemic on adverse pregnancy outcomes. Results: among 128968 women showed that women who had given birth during the pandemic were more likely to be of young age, lower rates of alcohol consumption and smoking, lower weight gain, and higher rates of using synthetic milk for feeding neonates ($P < 0.05$). Also, the risks of preterm labor were high (cOR 95% CI, 1.13 to 1.31; $p < 0.01$) and the risk of caesarian were low (cOR 95% CI, 0.95 0.92 to 0.98; $p < 0.01$) among pregnant women who gave birth during the COVID-19 pandemic compared with those who gave birth before the pandemic. Conclusions: In summary, we found that during the COVID-19 pandemic there were the higher risks of preterm labor and lower risk of caesarean among pregnant women.

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