

Comparison of the first and second waves of COVID-19 on pregnancy outcome

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Background

- A “wave” describes the trends in diagnoses and deaths in a pandemic. Since the emergence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in December 2019, there have been two waves of the coronavirus disease (COVID-19) pandemic experienced in Qatar. The first wave occurred between April 1, 2020 and 31st Oct 2020, and the second wave between March 1, 2021 and 31st May 2021.
- The starting point for each wave is defined for the purpose of this review as the first day with more than 400 new cases of COVID-19 per day for 2 consecutive days, and the end point as the last day before a reduction to less than <150 cases per day for ≥7 days.

Objectives

- The primary aims of this descriptive observational study are to compare the demographics and clinical outcomes among inpatients between the 1st two waves of the COVID-19 pandemic in Qatar. Demographic data compared will include the maternal age at diagnosis, parity, gestational age at admission, ethnicity, and any preexisting comorbidity. The outcomes for comparison will include clinical presentation, symptoms on admission, duration of symptoms, duration of hospital stay, admission to ICU, oxygen requirement and severity of disease.

- Secondary outcomes to be studied will be the obstetric complications including pre-eclampsia, APH, preterm delivery, emergency cesarean section, postpartum hemorrhage (PPH), thromboembolism, and neonatal outcomes including admission to the neonatal intensive care unit (NICU), prematurity, neonatal depression, covid-19 positive, neonatal death.

Method

- This will be a descriptive retrospective review of the Covid19 positive pregnant cases admitted to Al Wakra maternity hospital during the timeline from (April 1, 2020, to Oct 2020) and all cases admitted to Cuban hospital in the second wave between (March 2021 to -31 May 2021).

Outcomes:

- The demographic data will include age of pregnant, gestational age on admission, ethnicity of patient, preexisting comorbidities, parity of patient.
- The Severity of disease will be the primary outcomes including Clinical presentation, symptoms on admission, duration of symptoms, duration of hospital stay, admission to ICU, need for oxygen secondary outcomes will be the obstetric complications including pre-eclampsia, APH, preterm delivery, emergency cesarean section, PPH, thromboembolism
- Other secondary outcomes will be the neonatal outcomes including admission to NICU, prematurity, neonatal depression, covid-19 positive, neonatal death.



Conclusions

- This study is now in the analysis stage, and we hope that the result will add to the international literature about the impact of COVID-19 on pregnancy during various waves of infection

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