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Title

Maternal And Neonatal Outcomes in a Cohort of Covid Positive Mothers in West Texas population

Priority 1 (Research Category)

Clinical research (other)

Presenters

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Abstract

Background: SARS-CoV-2 (Covid-19) infection was declared a global pandemic by the World Health Organization on March 11, 2020. The guidelines and management of pregnant mothers and their neonates rapidly evolved and often varied. Objective In this study, we evaluated the epidemiological, clinical characteristics, and outcomes of neonates born to mothers with a history of Covid-19 infection at any time during their pregnancy during the pre-Delta, Delta, and Omicron waves in the West Texas communities of Lubbock and Odessa. We sought to evaluate the relevance of Covid-19 PCR testing in asymptomatic neonates, readmission rates, preterm birth risk, and NICU admission percentages.

Design/Methods: This multi-center retrospective cohort study included maternal-neonate dyads who delivered between March 1, 2020, and February 28, 2022, at three hospitals in west Texas. Dyads were included if mothers had positive Covid-19 tests at any point during pregnancy up to 48 hours after delivery. We collected demographic and clinical characteristics for mothers and babies from direct chart review. We generated descriptive statistics using Sas 9.4.

Results: We included 551 infants in our study population. The average gestational age at delivery was 38.1 weeks, SD(standard deviation) +/- 2.4, and the average maternal age was 27.3 SD+/- 5.7, and 60% (n=282) of mothers with no co-morbidities. Most mothers had symptoms (n= 302, 58.2%), although most received no treatment for Covid (94.1% v%, n=386). For the cohort, 12.4% (n=64) of infants were premature (< 37 weeks), and 11.6% (n=60) were admitted to the NICU. For infants not requiring ICU care, most were not separated from their mothers (98.3%, n=425). For infants with data for post-natal testing available, most were not tested for Covid-19 (n=239, 57%), and only 1.2% tested positive (n=5). Very few infants, 0.9% (n=4), were readmitted to the hospital with conditions due to Covid-19.

Conclusions: As in other cohorts, infant outcomes after exposure to maternal Covid-19 were generally consistent with those seen in the general neonatal population. Few infants experienced apparent postnatal complications of Covid-19 exposure. In this multi-center cohort, some aspects of care varied

across centers and over time as each hospital developed policies and reacted to evolving evidence and recommendations. Despite the variances in care, there were no significant alterations in the outcome.