**Outcome of Neonates Born To COVID Positive Mothers at A Tertiary Centre - A Cross Sectional Observational Study**

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**Abstract**

**Introduction**

In the context of the pandemic, studies on perinatal SARS-CoV-2 infection play an essential role in understanding of disease which in turn is necessary for optimal management of affected neonates.

**Aims and objectives**

To determine clinical outcomes in neonates born to mothers with SARS-CoV-2 infection and to identify possible risk factors in perinatal transmission.

**Materials & methods**

This is a Cross-sectional observational study; records of neonates born between 15 April 2020 and 15 September 2021 were collected and analysed

Statistical analysis: Descriptive statistics were used; Comparison made using chi-square test or Fisher exact test for categorical variables and student t-test for numerical variables.

**Results**

A total of 563 neonates were born to Covid positive mother, of which 34 (6%) were positive for SARS-CoV-2. Among 563 neonates 82 (14.5%) were preterm. Caesarean section (83.3%) was major route of delivery. Majority (95.5%) were asymptomatic. Caesarean (p value 0.01) and rooming in (p value 0.02) significantly higher among COVID negative neonates. COVID positive neonates had significantly higher probability of having pneumonia (p value 0.0039), sepsis (p value 0.0344), septic shock (p value 0.0112) and abnormal CXR (p value 0.0104). No significant difference was noted in mortality rate.

**Conclusion**

This study shows that COVID-19 positive status of either the mother or neonate can be associated with increased risk of neonatal morbidity. Risk of transmission was not found to be associated with direct breast feeding or rooming in.

Keywords: SARS-CoV-2, Neonates, pneumonia, sepsis, septic shock