

Vertical Transmission of COVID-19: A Case Report

Amrita Chaurasia¹, Shakti Jain², Yashi Srivastava³, Samiksha Kumari⁴

¹Professor and Head, Department of Obstetrics and Gynecology, Moti Lal Nehru medical College, Prayagraj, India

²Assistant Professor, Department of Obstetrics and Gynecology, Moti Lal Nehru Medical College, Prayagraj, India (Corresponding author)

³Junior Resident, Department of Obstetrics and Gynecology, Moti Lal Nehru Medical College, Prayagraj, India

⁴Junior Resident, Department of Obstetrics and Gynecology, Moti Lal Nehru Medical College, Prayagraj, India

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Synopsis: Vertical transmission of COVID-19: A rare occurrence in a neonate delivered by cesarean section tested positive in nasopharyngeal swab at 40th hour of delivery.

As there is no concrete evidences of in-utero transmission of SARS-CoV-2. we report a case of vertical transmission of COVID-19 from Northern India.

1. Case Report

Patient came to our hospital as asymptomatic COVID positive 26yrs old G2P1+0 38 week pregnancy with previous LSCS with cephalopelvic disproportion on 12/05/2020. Source of infection was accidental contact with unknown COVID positive patient at hospital where she went for Antenatal visit.

A female baby of 3.25 kg with Apgar score 8/10, 9/10 at 1 and 5 minutes was delivered by caesarean section on 12/5/20. All protective measures were taken to avoid transmission of infection to the baby as per ICMR guidelines [1]. baby was shifted to NICU and was asymptomatic. top feeding was started by mothers choice. newborn's pharyngeal swab collected at 40th hour after birth was tested positive by RT-PCR.

Considering meticulous protective measures maintained during intranatal and postnatal period and positivity of the baby's nasopharyngeal swab at < 48 hours, we concluded of vertical transmission. Mother and baby were closely monitored, both remained asymptomatic. they were discharged on 23/05/2020 as repeat covid-19 reports were negative (as per guidelines of MoHFW, GOI) [2].

2. Discussion

Since there is inconclusive data on virus-related adverse pregnancy outcomes miscarriages, preterm labour, PROM and still births have been reported, it's not evident whether these were sporadic or related to maternal infection. Initial reports completely denied vertical transmission, later on, some cases were reported. Wang S. et al from China reported COVID positive baby tested 36hrs after birth in spite of taking all precautionary measures during caesarean section [3]. In a UK study, done on 427 COVID positive pregnant women 5% delivered babies tested positive, of which 50%

tested within first 12hrs after birth, suggesting vertical transmission [4].

We admit shortcomings of this case, newborn's pharyngeal swab wasn't taken immediately after birth. Due to lack of preparedness cord blood and placenta weren't tested. Still, baby's positive RT-PCR at 40th hour isn't possible with postnatal infection because sincere precautions were taken to avoid postnatal infection and RT-PCR tests positive at least after 48 hours of contracting the infection.

3. Conclusion

Various case reports of Vertical transmission are there in past 3 months of COVID-19 literature. confirmation of vertical transmission requires more evidences. Till now we were more into establishing the occurrence of vertical transmission of COVID-19, Now we need to calculate the incidences of vertical transmission and develop more precise preventive strategies.

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