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Severe neonatal COVID-19 pneumonia requiring mechanical ventilation: case report

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INTRODUCTION

The novel coronavirus disease 2019 (COVID-19) pandemic has prompted the development of guidelines for diagnosis, management, infection control strategies and discharge planning. However, there is currently limited knowledge about neonatal COVID-19 and severe acute respiratory syndrome coronavirus 2(SARS-CoV-2) infections. While the number of pediatric COVID-19 cases appears to be low, the exact incidence and associated morbidities/mortality of SARS-CoV-2 infection in neonates are not clear.

CASE REPORT

- Preterm girl
- Caesarean section at a postmenstrual age (PMA) of 31+6 weeks (maternal eclampsia) with a birthweight of 1400g (P10-50).
- Hyaline membrane disease (HMD).
- Admitted to the Neonatal Intensive Care Unit (NICU) and discharged at day 31 of life (PMA 36 + 1w)

CONCLUSION

With this report, the authors would like to emphasize that, although rare, even newborns can experience severe COVID-19 that may require intensive care and invasive ventilatory support. In this case possible risk factors may have been high and repeated viral exposure, preterm birth, and immature regulation of breathing.

39 weeks PMA (D53) — **NICU** — **Episodes of bradycardia + desaturation**

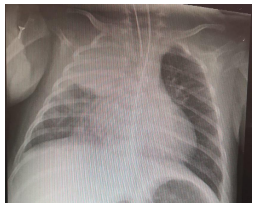
CPAP support (FiO2 21% e PEEP 5)

Frequent and severe apnoeas

D54 — Endotracheal intubation

D55 — Nosocomial sepsis

- RT-PCR for SARS-CoV-2: **positive**
- WBC 11500/uL (N 7600/uL; L 3100/uL);
- Platelet count 190000/uL;
- **C-RP 119.4mg/L; PCT 31.13ng/mL**
- BC at admission: negative | BC D56: S. hominis.
- Chest X-rays- right upper lobe atelectasis



Vancomicina + Meropenem (10 days) **+** methylprednisolone (3 days)

D57 — extubation

CPAP support (FiO2 21% e PEEP max 6)

D58 — Spontaneous ventilation

40+4 weeks PMA (D64) — **Discharged**