



Early extra-corporeal membrane oxygenation cannulation for COVID-19 positive parturients

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Case Reports

Case 1

- 24yo G1P0 at 30w1d presenting 5 days after COVID dx
- Delivered viable infant under neuraxial anesthesia via c-section for worsening COVID sx and maternal benefit on hospital day 1
- Intubation on HD 2
- Placed on VV-ECMO 3 hours after intubation
- 7-day ECMO run; discharged HD 19
- Infant intubated after birth for surfactant administration and extubated on DOL 0
- Infant had 6-week NICU stay and discharged home

Case 2

- 32yo G1P2 at 26w5d presenting 1 week after COVID dx
- Required emergent intubation and cesarean delivery for fetal hypoxia secondary to maternal hypoxia on HD 3
- Hypoxia failed to improve after intubation and delivery; placed on VV ECMO on HD 4
- 6-day ECMO run; discharged HOD 17
- Infant had 4-month NICU stay with prolonged intubation and was ultimately discharged home



Discussion

- VV ECMO has been widely used during the COVID-19 pandemic
- ELSO has published guidelines regarding use of VV ECMO in COVID-19, but little information is available regarding its use in parturients
- With complications and severity of COVID being higher in pregnancy, it was important to examine the outcomes and considerations for this population
- Several case studies and series have demonstrated positive outcomes for both cardiac and/or respiratory failure
- Our single center experience suggests *earlier* cannulation (vs salvage therapy) may lead to positive maternal outcomes
- A large multicenter retrospective cohort study may allow us to delineate optimal cannulation time and overall management of these patients

References:

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Parents visit their infant in the UAMS NICU. Infant was born prematurely as mother battled COVID-19. Image obtained from UAMS News website. Caption edited to remove identifying information.

Family's Happy Ending Almost Derailed by COVID-19