Case Presentation: Lung Transplant Evaluation for COVID-19 PNA and ARDS

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History

• 31F with no significant PMHx, at 28w5d gestation
  – Presented to an outside ED with 1 week of dry cough
  – Symptoms progressed to fever, SOB/DOE over preceding 48 hours
History (Cont)

- Found to be COVID-19 & Rapid Strep +ve
  - Increasing $O_2$ requirements: (7L NC -> 15L NRB)
- Started on Azithromycin and Betamethasone
- Transferred to Texas Children’s Hospital (TCH) for peripartum care
History (Cont)

• At arrival to TCH, visibly dyspneic & tachypneic
  – WOB improved with transition to HFNC
  – Started on Ceftriaxone for Group A Strep pharyngitis
  – Treatment for COVID initiated:
    • Remdesivir
    • Convalescent plasma
    • Dexamethasone
History (Cont)

• HD #4:
  – Acute worsening in respiratory status → intubated
  – Urgent cesarean delivery at 29w2d

• Unable to be extubated post C-section with worsening hypoxemia
  – HD #14: Transferred to Baylor St. Luke’s Medical Center (BSLMC)
Physical Exam – Arrival at BSLMC

- **Vital Signs:**
  - T: 100.4F, HR: 89, BP: 99/55, RR 26 with 95% SaO2

- **Ventilator Settings:**
  - Mode: CMV, Vt: 300mL, RR: 26, PEEP: 9 cm H2O; FiO2: 60%
  - PIP: 38 cm H2O, PPLAT: 37 cm H2O, P/F: 267

- **GEN:** Intubated; Sedated on Hydromorphone & Propofol gtts, midazolam PRN

- **CV:** RRR, no murmur auscultated

- **PULM:** Coarse breath sounds bilaterally, symmetric chest rise

- **ABD:** C-section wound healing without erythema or exudates

- **EXT:** No appreciable pitting edema in BLE; DP/PT pulses palpable bilaterally
Initial Laboratory Values

CRP: 11.4
LDH: 834
Ferritin: 132

D-Dimer: 1.5
PCT: 0.05
Troponin: 0.01
Hospital Course

- Worsening oxygenation; On inhaled Epoprostenol, deep sedation & paralytics.
- Proning initiated

HD #20

- Tracheostomy

HD #25
• Given worsening hypoxemia and lung compliance, would you refer this patient for consideration of lung transplantation?
  A. Yes
  B. No
  C. I do not know
Hospital Course

- **LTx Service Consultation:**
  - Prolonged MV w/ deep sedation & paralytics; Deconditioning preclude active listing
  - Given single organ dysfunction, stabilization with ECLS recommended
  - VV-EMCO cannulation (Rt FV inflow, Lt SCV outflow) as bridge to transplant vs recovery

- **HD #36**
  - Weaned to Tracheostomy Collar
  - RIJ Avalon cannula exchange for mobilization given prolonged ECMO needs

- **HD #28**
CXR at VV-ECMO Cannulation
CXR at RIJ Avalon Cannula Exchange
Hospital Course

- Decannulated from VV-ECMO (HD #42)
- Transferred out of ICU (HD #44)
- Discharged to inpatient rehabilitation facility (HD #51)
CXR Prior to Discharge