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Persistent Pulmonary Hypertension in a Late Preterm Newborn

Thursday, October 4, 2012

Presentation

- 35 week infant, uncomplicated pregnancy, vaginal delivery
- Maternal chorioamnionitis, ROM x 13 hours, GBS unknown
- No meconium at delivery, Apgars 4,6, and 8
- Apneic, bradycardic, and hypoxic at birth
- Intubated, hypoxic despite conventional mechanical ventilation: FiO2 100%, rate 40, PEEP 5, PIP 30
- Antibiotics initiated, Dopamine at 20 and Dobutamine at 20 titrated for hypotension and lactic acidosis (SBP <60)
- ECHO: elevated RV pressures, R to L shunt across PDA
- iNO added at 20 ppm
- Transferred to UNC for persistent hypoxia

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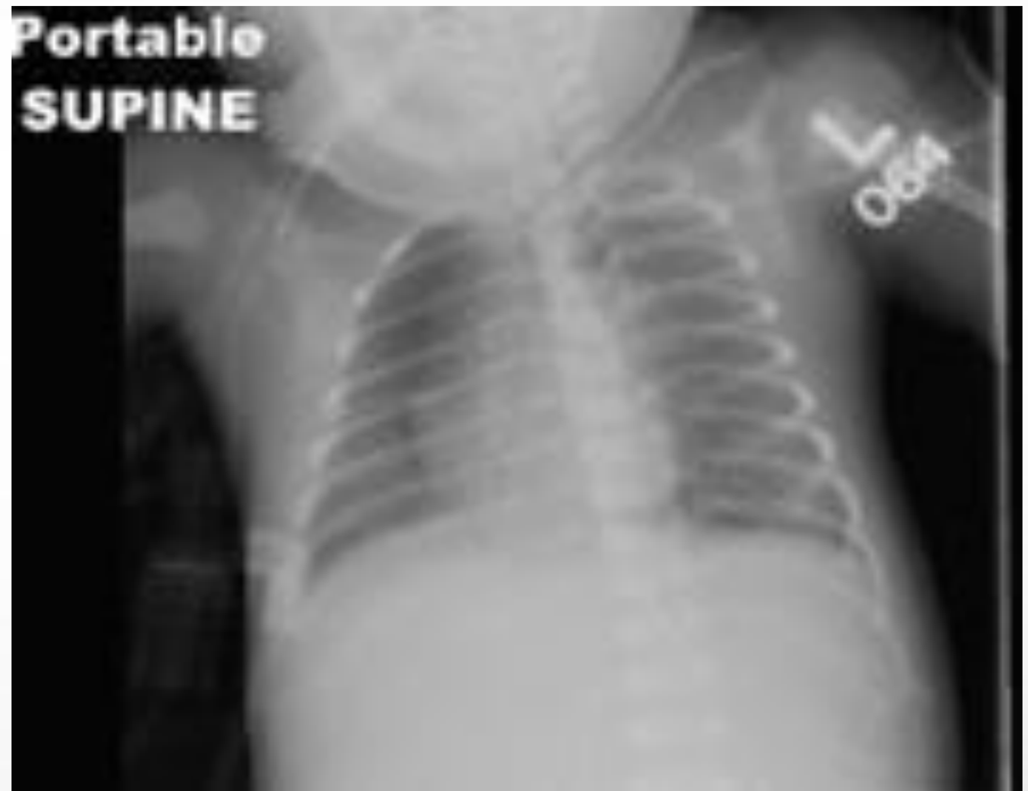
Management

- Epinephrine initiated, Dopamine and Dobutamine weaned
- Continued Ampicillin & Gentamicin, added Acyclovir
- Transfused pRBC for Hgb 10
- Transitioned to HFOV
- ECHO with right to left shunt across PDA
- Persistent hypoxia with $PaO2$ <50



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Options for PPHN Treatment

Pulmonary

- Hyperoxia, avoid hypercarbia/acidosis, iNO, Sildenafil, surfactant, inhaled Prostaglandin, Bosentan

Cardiovascular

- Vasopressors, Milrinone

Neurologic

- Sedation

Hematologic

- Hgb > 15

ECMO

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Failure of Conventional Management

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Hospital Course and Outcome

- ECMO 8/4-8/10
- 8/19 OSSA tracheitis, treated with oxacillin
- Extubated to HFNC 8/20
- Weaned to room air 8/31
- Bronchoscopy 9/6: right vocal cord paresis
- Discharged home at 6 weeks of life on 9/14
- Outpatient clinic visit 9/27: doing well, no further respiratory issues

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