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Case Description

- 2 month old, 4kg FT male
- Presented for an elective open Ladd’s procedure
- PMHx: choking and cyanotic episodes with perioral cyanosis with feeds
- Evaluation for CHD: normal ECHO and EKG
- Upper GI to R/O vascular rings: suggestive for malrotation
- Hb 11g/dl

Intra-Operative Management

- Inhalation induction
- Difficult to ventilate
- Direct laryngoscopy: blood in the oropharynx
- 3.0 cuffed ETT secured despite grade 4 view
- Chest auscultation: bilateral wheezing and desaturation treated with 100% FIO2 and albuterol
- Hypoxia and wheezing resolved within minutes and surgery proceeded
- At completion of surgery, ventilation became extremely challenging with recurrent and persistent hypoxia (O2 sat 70%) despite vigorous hand ventilation with elevated peak airway pressures

Post-Operative Management

- Hemodynamically unstable
- Nitric oxide 40 ppm started in OR
- Stat echo: normal structure and function
- PRBC transfused for Hb 7.5g/dl
- Resuscitation per PALS protocol
- Once stable, the patient was transported to the NICU with NO
- Transitioned to oscillator
- IV hydrocortisone q8 hours

Follow-up

- Weaned off vasopressors overnight
- Off NO in 3 days
- Transitioned from oscillator to conventional ventilator within a week
- Treated for positive respiratory cultures: H. influenza
- Extubated on POD 12

Discussion

CDC definition for Acute IPH (2004)
- Frank blood in the airway
- Age <1 year
- Absence of medical conditions related to pulmonary hemorrhage
- Severe acute respiratory distress or respiratory failure.

Our patient fits all 4 criteria with perihilar and bibasilar opacities on post op CXR.

Treatment options are supportive therapy and systemic glucocorticoids.

CXR demonstrating bilateral lung opacities in a patient with IPH

References