Disorders Causing Acute Neonatal Respiratory Distress

Objectives

- Describe how the antenatal course, events occurring at birth, initial physical exam, and response to supplemental oxygen can provide critical information about pathophysiology of hypoxemic respiratory failure in newborns
- Explain how the use of pulse oximetry, chest radiographs, and laboratory evaluation can assist in the differential diagnosis and selection of treatment approaches for respiratory disorders in newborns
- Summarize the underlying pathophysiology, characteristic early clinical and laboratory findings, and recommended therapeutic approaches for the most common causes of respiratory failure in the early neonatal period

Content Outline

1. Evaluation and Management of Newborns with Acute Respiratory Disorders
   - 1.1 History of risk factors for hypoxemic respiratory failure
   - 1.2 Initial physical findings with focus on cyanosis
     - 1.2.1 Supplemental oxygen response
     - 1.2.2 Pulse oximetry measurements and interpretation
   - 1.3 Evaluation of laboratory results and imaging studies
2. Conditions Causing Neonatal Respiratory Distress
   - 2.1 Respiratory distress syndrome (RDS)
   - 2.2 Pulmonary hemorrhage
   - 2.3 Pulmonary hypoplasia
   - 2.4 Pneumonia
   - 2.5 Pneumothorax
   - 2.6 Transient tachypnea of the newborn (TTNB)
   - 2.7 Meconium aspiration syndrome (MAS)
   - 2.8 Congenital diaphragmatic hernia (CDH)
   - 2.9 Surfactant protein deficiency

Reading Material Resources

Module WB2619: Disorders Causing Acute Neonatal Respiratory Distress is based on the resource listed below. A copy of the resource is included with the module.

Chapter 42 Acute Neonatal Respiratory Disorders, Dyess NF, Kinsella JP, and Parker TA in *Avery's Diseases of the Newborn, Eleventh Edition*, Elsevier, 2024, 594-613