REBEL Cast April 2015 – Show Notes
The Crashing Asthmatic

Acute severe asthma is defined as severe asthma unresponsive to repeated courses of beta-agonist therapy or subcutaneous epinephrine. It is a medical emergency that requires immediate recognition and treatment. Recently, Anand Swaminathan (Twitter: @EMSwami) gave a lecture to the residents at the University of Texas Health Science Center at San Antonio (UTHSCSA) February 2015.

Summary of Heroic Medical Measures

1. Focus on breathing, circulation, airway, not airway, breathing, circulation.
2. Pre-oxygenate your patient with high flow nasal cannulat at 20 – 30 LPM
3. IM Epinephrine 0.3 – 0.5mg of 1:1000
4. Non-Invasive Positive Pressure Ventilation (NIPPV)
5. Corticosteroids
6. IV Magnesium Sulfate 2g x3 during 1st hour
7. IVF 30cc/kg
8. Sub-Dissociative Ketamine (0.1 mg/kg bolus followed by IV infusion of 0.5mg/kg/hr for 3 hours)
9. Delayed Sequence Intubation: Procedural sedation to help facilitate pre-oxygenation
10. IV epinephrine 1:10,000 concentration

Summary of Intubation

1. Nasal Oxygen During Efforts Securing A Tube (NO DESAT)
2. Induction Agent: Ketamine 1 – 2mg/kg IV
3. Paralytic Agent: Rocuronium 1.2mg/kg IV

Summary of Ventilation Management

1. Permissive Hypercapnia
    - RR 6 – 8 breaths/min
    - Tidal Volume 6cc/kg of IDEAL BODY WEIGHT
    - Peak Flow 90 – 120 L/min
2. Keep Plateau Pressure < 30mmHg
3. Paralyze for Ventilator Asynchrony
4. Hemodynamic Instability:
    - Consider Inhalational Anesthetics by anesthesiology
    - Consider V-V ECMO if available
5. DOPES mnemonic
    - Displacement of tube
    - Obstruction of tube
    - Pneumothorax
    - Equipment Failure
    - Stacked Breaths