Lemierre’s Syndrome Septic Shock
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Introduction

- Suppurative thrombophlebitis of the internal jugular vein following an oropharyngeal infection
- Radiological evidence of thrombus confirms the diagnosis
- Fusobacterium necrophorum is the most common organism isolated
- Symptoms coincide with COVID: abdominal pain, fever, cough, and can lead to septic shock

Case Report

- A healthy 23 year-old male presented with cough, shortness of breath, hemoptysis, fever, and abdominal pain for the past 6 days.
- Blood pressure was 79/44 mmHg, HR 140 bpm, Temp 100.8°F, RR 22 bpm, saturating 85% on room air. COVID-19 PCR negative WBC 3500, Platelets 45K, Cr 1.6. He received 4L of NS, and required norepinephrine to maintain MAP>65. Empiric antibiotic therapy was initiated
- Physical exam at that time revealed pale appearing male with coarse breath sounds in all lung fields and severe right sided abdominal pain without rebound, guarding, or rigidity
- CT chest showed bilateral ground glass opacities and splenomegaly
- He had three repeat COVID-19 tests which all came back negative

Radiology

Fig 1. Bilateral consolidations and ground-glass opacities. Small bilateral pleural effusions. Findings most likely related to pulmonary edema

Fig 2. Filling defect within the left mid and upper IJ vein with intraluminal thrombus

Fig 3. Increased bilateral airspace opacities

Case Report

- Unable to maintain oxygen saturation and was intubated for acute hypoxemic respiratory failure
- Blood cultures grew gram negative rods, later confirmed as Fusobacterium necrophorum
- Oral examination revealed white tonsillar exudates and he had associated left sided cervical lymphadenopathy
- CT of neck showed a thrombus in the left internal jugular vein
- Antibiotics were narrowed to metronidazole heparin drip was initiated to prevent further septic embolization

Discussion

- There is a predominance of Lemierre’s syndrome in the male gender with a 2:1 ratio
- Diagnosis is confirmed by presence of oropharyngeal infection, bacteremia, jugular vein thrombophlebitis and metastatic sequelae
- Treatment consists of antibiotic coverage for 3-6 weeks and anticoagulation
- In the age of COVID-19 it is crucial to not make a presumptive diagnosis, it is important to make a working plan that can change

References