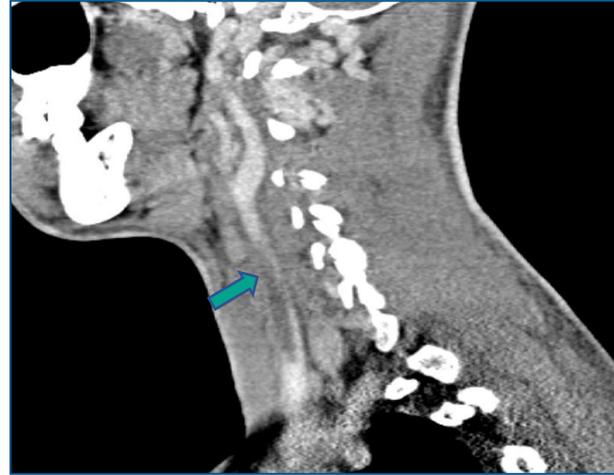


Introduction

Lemierre's syndrome (LS) is a rare, but life-threatening sepsis characterized by thrombophlebitis of the internal jugular vein (IJV), usually due to anaerobic bacteremia, namely *Fusobacterium necrophorum*, following a recent oropharyngeal infection. With the advent of antibiotic use, its incidence has decreased dramatically however, its recognition and timely treatment remain crucial.

Case Description

We report a 24-year-old male with no past medical history who presented to the Emergency Department for 3 days of sore throat. On presentation, he was febrile with T 103°F and was found to have bilateral tonsillar enlargement with erythema and exudates. Throat cultures were negative and he was discharged with symptomatic treatment. A week later, his sore throat continued to improve but presented to ED with fatigue, fevers, chills, left-sided pleuritic chest pain and neck pain. His temperature was 103°F, BP 106/50 mmHg, HR 121/min, RR 18 and O2 saturation 97% on RA. Physical exam revealed a grade III systolic murmur in the tricuspid region and bibasilar rales. CBC was remarkable for neutrophilic leukocytosis of 13.9K/UL. CT scan of the chest showed one cavitory infiltrate in the left upper lobe and multiple bilateral nodular opacities. Transthoracic echocardiogram did not show any valvular vegetations and blood cultures were negative. Subsequent gram stain and cultures from bronchoalveolar lavage were negative for acid fast bacilli and fungi. CT scan of the neck revealed a filling



CT scan of the neck: Arrow pointing to the filling defect in the left IJV.



CT scan of the chest: Arrow pointing to the cavitory infiltrate in the left upper lobe.

defect in the left IJV consistent with thrombophlebitis. Patient was diagnosed with Lemierre's syndrome and was treated empirically with broad spectrum antibiotics. He continued to clinically improve and was discharged to complete 4 weeks of IV antibiotics.

Discussion

Lemierre's syndrome often presents with a triad of prolonged pharyngitis, lateral neck pain, and febrile illness. Its pathogenesis is thought to involve oral flora that migrates via veins, lymphatics, or regional tissue to the IJV. Upon imaging, LS typically displays multiple loculated lesions in the lungs and possibly an upper lobe consolidation. An intraluminal filling defect is generally seen in the IJV. While it is possible for blood cultures to grow *Fusobacterium necrophorum*, in our case as well as many others, cultures often may return negative. Given that *Fusobacterium* is the most common culprit, it is reasonable to include anaerobic coverage in the setting of negative blood cultures. Our case highlights the gravity of keeping a high index of suspicion for LS, in patients presenting with acute tonsillopharyngitis and neck pain, even in the absence of an organism identified on a blood culture.

References

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