

## Images in Infectious Diseases

# Lemierre Syndrome: An Uncommon Cause of Septic Embolism

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An 18-year-old female patient presented to the emergency department with complaints of high fever (40.2°C), chills, and sore throat. She also had chest pain, dyspnea, and tachypnea (respiratory rate:30 breaths/min; 80% oxygen saturation). Physical examination revealed edematous and congested oropharyngeal mucosa, along with acute tonsillitis and right-sided neck edema. Laboratory tests revealed leukocytosis (leukocyte count, 18,000/mm<sup>3</sup>) and elevated levels of C-reactive protein (26.3 mg/L). Blood culture was positive for anaerobic *Fusobacterium necrophorum*.

Chest computed tomography (CT) revealed multiple bilateral nodules, most of which were cavitated (Figure 1A, B). Contrast-enhanced CT of the head and neck revealed a hypoechoic thrombus filling the right internal jugular vein (Figure 1C, D). Color Doppler imaging revealed a thrombus and the absence of detectable intraluminal flow (Figure 1E). The patient was diagnosed with Lemierre syndrome secondary to oropharyngeal infection. Her symptoms improved with antibioticotherapy, and she was discharged in a stable condition.


Lemierre syndrome is defined as septic thrombophlebitis of the internal jugular vein that becomes a source of septic emboli in the setting of throat infection. The most commonly involved organism was *F.necrophorum*. When not recognized and treated aggressively, primarily with broad-spectrum antibiotics, this syndrome causes significant morbidity and mortality<sup>1,2</sup>.

### AUTHORS' CONTRIBUTION

ACPG, EMattar and EM contributed significantly to the work, and have read the manuscript and approved its submission.

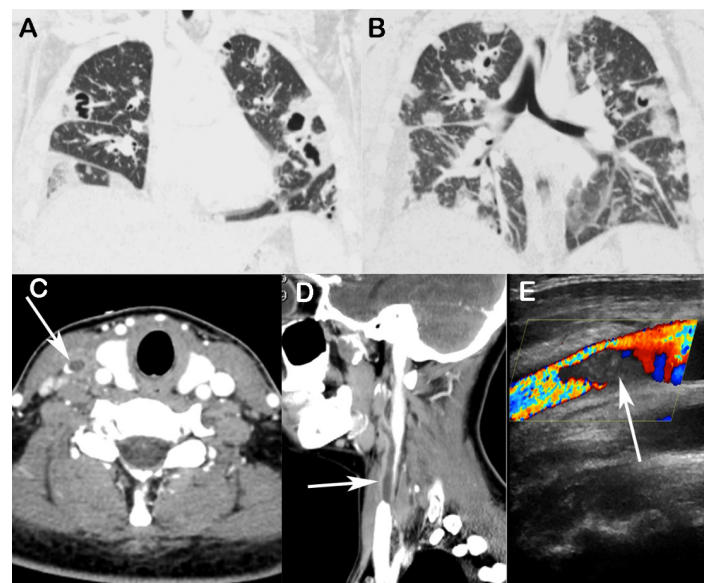
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**FIGURE 1:** Chest computed tomography (CT) with coronal reconstruction (A and B) demonstrating multiple bilateral pulmonary nodules, most of which were cavitated and associated with areas of consolidation. Right pleural effusion should also be noted. Contrast-enhanced CT of the neck region with axial (C) and sagittal (D) reconstruction showing a hypoechoic thrombus in the right internal jugular vein (arrows). Color Doppler imaging (E) also demonstrating the thrombus (arrow).

ACPG and EM took part in conception of the manuscript and data acquisition. ACPG and EMattar contributed to the analysis and interpretation of data. EM drafted the manuscript and reviewed the literature.

### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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