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## Lemierre's Syndrome

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A 25-year-old woman presented to the emergency department (ED) with 4 days of progressive, left-sided neck pain and swelling. Additional symptoms included sore throat, dysphagia and left otalgia. On presentation she was tachycardic, hypotensive and had an exam notable for granular pharyngitis as well as a large area of nonfluctuant induration and swelling posterior to her left mandibular angle (Figure 1). Diffuse anterior and posterior cervical lymphadenopathy was palpable on the left. She had a white blood cell count of 13.4 with a left shift and no bacteremia. A computed tomography (CT) of the neck with intravenous contrast was also performed (Figure 2).

Lemierre's syndrome, also called postanginal septicemia, is a rare but potentially fatal disease characterized by septic thrombophlebitis of the internal jugular vein. Affected patients are typically young, otherwise healthy individuals with a recent history of tonsillitis (37%) or pharyngitis (30%) followed by severe sepsis.<sup>1-2</sup> Patients often present with complaints of sore throat, neck pain or neck mass as well as bone and joint pain related to septic emboli. The primary infection progresses to abscess formation within 1-3 weeks, facilitating invasion of the parapharyngeal space and internal jugular vein, leading to septic thrombophlebitis. The disease is often complicated by septic emboli traveling to the lungs and large joints. Isolated organisms include anaerobic pathogens, with *Fusobacterium necrophorum* being the most common.<sup>2</sup>

Early recognition and treatment are crucial as the mortality rate in untreated individuals approaches 17%. Antibiotic treatment should include intravenous anaerobic coverage with metronidazole or clindamycin which can be transitioned to oral with minimum treatment duration of 3 weeks. Anticoagulation in Lemierre's syndrome remains controversial but should be considered if thrombosis extension is noted clinically.<sup>2</sup> The imaging modality of choice is a contrast enhanced CT of the neck. Radiologic findings include intraluminal venous filling defects and peripheral rim enhancement of the involved segment which can measure 10-20 cm in length and most frequently includes complete occlusion.<sup>3</sup>

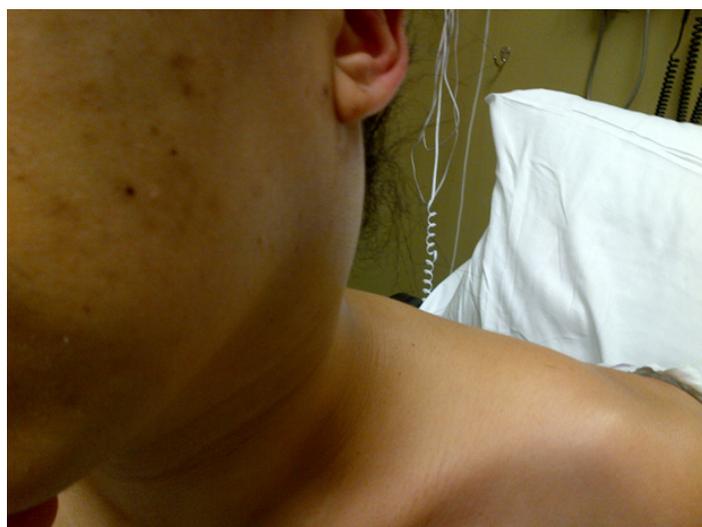


Figure 1. Large mass on left lateral neck.



Figure 2. Coronal computed tomography of the neck with contrast demonstrating a 3.3 cm loculated abscess (\*) in the left posterior triangle with adjacent cervical adenitis and left internal jugular vein occlusion.

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