From Sore Throat to Jugular Vein: Unravelling the Enigma of Lemierre's Syndrome

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INTRODUCTION:

Lemierre's syndrome (LS) is a rare complication following an oropharyngeal infection and is characterized by thrombophlebitis of the internal jugular vein (IJV) and further complicated with septicemia, IJV thrombosis and septic emboli.

CASE:

A 47 years old lady presented to Emergency Department with fever, sore throat, lethargy and swelling over the left neck for 4 days. She was septic looking and hemodynamically unstable. Examination showed a tender left neck swelling measuring about 3cm x 3cm with no skin changes and enlarged bilateral tonsils (Grade III). C-reactive protein was 334 mg/L. Neck Xray showed no thickening of soft tissue or thumb sign. Contrast enhanced CT (CECT) neck revealed bilateral palatine tonsillitis with left peritonsillar microabscess and surrounding inflammatory changes causing oropharynx narrowing and left IJV thrombosis. She was treated with IV Ceftriaxone for 1 week, IV Metronidazole for 5 days and anti-coagulant for provoked thrombosis. On Day 7 of admission, she developed septic lung metastasis where she received IV Ceftazidime for another week. Her condition improved and discharged with oral antibiotic for another 4 weeks and direct oral anti-coagulant.

DISCUSSION:

Radiological findings of intraluminal filling defect in the jugular venous wall often provide the first diagnostic clue for LS. CECT is considered the gold standard and is superior to ultrasound as it allows better assessment of deeper venous segments, depict sites of septic emboli and primary infection. If left untreated, release of septic emboli into the systemic circulation results in the widespread dissemination commonly into the lungs, dural venous sinus, meninges and joints. The mainstay of treatment for LS is antibiotic therapy for 6 weeks. Anticoagulation is usually recommended when the thrombus extends into the cerebral sinuses, for large or bilateral clot burden, or when a patient fails to improve in the first 72 hours with appropriate antibiotic and/or surgical therapy.

CONCLUSION:

Due to the high frequency of benign oropharyngeal infections, the diagnosis of LS is often elusive on initial presentation. A high degree of suspicion of LS is essential when patients present with acute tonsillopharyngitis with neck pain and septic syndrome.

Keywords: Lemierre's Syndrome, IJV thrombosis, septic emboli