



## Pharyngotonsillitis can also Complicate

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### Abstract

A 30-year-old woman, with no medical history, went to the hospital Emergency Department (ED) presenting sore throat and cough without expectoration for a week, with a febrile syndrome of up to 39°C for the last 4 days. A few hours before her arrival, she began with bilious vomiting and liquid stools, without associated pathological products. No other symptoms in the anamnesis.

**Keywords:** Tonsillitis; Lemièrre; Sepsis

### Introduction

Upon arrival, blood pressure figures of 96/56 mmHg, with a fever of 37.9°C, basal saturation around 98% and heart rate around 120 beats per minute. Good overall condition. Aware and oriented. Slightly hyperemic oropharynx, with hypertrophic tonsils, without exudate plaques or uvular displacement. Peritonsillar abscesses are not palpable. Bilateral millimeter cervical adenopathy's. Intense pain at the tip of the finger over the anterior edge of the middle third of the right sternocleidomastoid muscle. Pulmonary auscultation with decreased vesicular murmur in the left base, without added noises. Cardiac and abdominal exploration without alterations.

### Case Presentation

Upon arrival, a complete analysis is requested, with a mononucleosis test and a chest X-ray. Elevated acute phase reactants were obtained, with CRP (C-Reactive Protein) of 37.2 mg/dl, procalcitonin 197.6 ng/ml, no leukocytosis or neutrophilia and no coagulation abnormalities. Negative mononucleosis test. The chest X-ray revealed an increase in density in the left lung base. Given these findings, blood cultures, urine antigenuria, and PCR (Polymerase Chain Reaction) for influenza virus, SARS-CoV-2, and respiratory syncytial virus are requested. Consultation with Otorhinolaryngology is requested, to rule out a complication of tonsillitis; given the examination with fingertip pain in the right jugulo-carotid axis, they requested contrast-enhanced cervical-thoracic CT (Computerized Tomography) to rule out complications at that level. A partial filling defect was described in the right jugular vein adjacent to a phlegmonous area in the right parapharyngeal space, without a clear collection, and it was not possible to rule out a small thrombus at that level; small parenchymal opacity in the left lower lung lobe, suggestive of atelectatic or consolidation origin, is also described. She was assessed by the Intensive Care Unit team, ruling out the need for admission to her unit at the present time. Given the findings in imaging tests, it was decided to enter the Internal Medicine service to complete the study due to the suspicion of Lemièrre syndrome [1-3]. During admission, a control cervicothoracic CT was performed, which described complete occlusion of the right internal jugular vein. Despite negative bacterial and viral serologies and blood cultures and no abscess being found, it was treated with empirical antibiotic therapy and low molecular weight heparin, with good clinical and analytical evolution. Subsequent follow-up was requested by the vascular surgery department and thrombophilia study.

### Discussion and Conclusion

Lemièrre's syndrome is a very rare septic complication of acute tonsillitis, generally caused by *Fusobacterium necrophorum* [4-6], a common anaerobic germ in the oral flora. Its diagnosis can be difficult due to its low prevalence, but it should be suspected, due to its high morbidity, in young patients with signs of severe sepsis and a history of recent oropharyngeal infection. Early and prolonged antibiotic treatment, with clindamycin, metronidazole, anti-pseudomonal penicillins and ampicillin-sulbactam, and anticoagulation have improved survival [7,8]. On occasions, when there is no response to medical treatment, ligation of the thrombosed jugular vein must be used.

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