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Medical Imagery Lemierre Syndrome in an Elderly Patient with Dementia

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An 83-year-old man was admitted with a nine-day history of anorexia and impaired consciousness. The patient presented a fever of 38.2 °C with hemodynamic stability. Physical examination revealed mild swelling and tenderness on the left side of his neck. His oral hygiene condition was poor due to dental caries and periodontitis (Figure 1A). Laboratory studies on admission showed an elevated white blood cell count of 19,690/ μL (reference range 3,300– $8,600/\mu$ L) and a C-reactive protein level of 22.41 mg/dL (reference range 0-0.4 mg/dL). Contrast-enhanced computed tomography revealed a thrombus in the left internal jugular vein and irregular pulmonary nodules (Figure 1B). Following 4-weeks administration of ceftriaxone and heparin, the thrombus shrank and the pulmonary nodules disappeared (Figure 1C), with normalization of blood inflammation parameters. From these findings, we concluded that this case was consistent with Lemierre syndrome (LS). The patient was diagnosed with atrial fibrillation during the clinical course; therefore, we started apixaban for atrial fibrillation as well as the prevention of further thromboembolism. LS is characterized by thrombophlebitis of the internal jugular vein and septic embolism in other organs after oropharyngeal infection.¹ Negative blood cultures are common in LS cases and do not negate the diagnosis.² Despite being typically associated with adolescence and early adulthood,^{3,4} LS is possible in older adults. Careful examination of the head/neck district is required to suspect LS, especially in patients with dementia who are unable to describe their symptoms clearly.

Disclosures

Nothing to declare.

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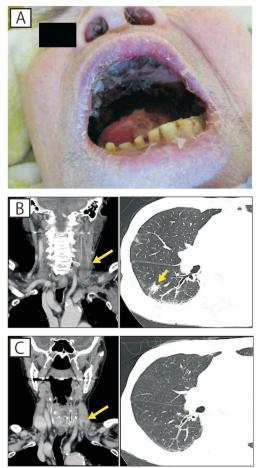


Figure 1. (A) Intra-oral clinical appearance at presentation. (B) Initial contrast-enhanced computed tomography on admission revealed a thrombus in the left internal jugular vein (left panel) and multiple irregular peripheral pulmonary nodules (right panel). (C) Contrast-enhanced computed tomography following 4-weeks administration of ceftriaxone and heparin revealed shrinkage of the thrombus (left panel) and disappearance of the pulmonary nodules (right panel).

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