

Double tongue signs in a case of submandibular space infection

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DESCRIPTION

Double tongue signs are a unique physical finding which involve an elevation of floor of the oropharynx caused by a bilateral infection of the submandibular space (a well-known example is Ludwig's angina) (figure 1A).^{1,2} In this case, an 80-year-old woman with a 10-year history of diabetes mellitus was referred to our emergency department. She presented with swelling from the submandibular region to the neck surface, with a 3-day history of continuous fever, weakness and fatigue. Physical examination revealed neck oedema with erythema and tenderness (figure 1B), without lymphadenopathy. The floor of the oropharynx was clearly swollen and elevated, such that it appeared to be a double tongue; this was erythematous and tender. Enhanced CT of the neck was performed, which revealed bilateral fluid

retention with swollen surrounding soft tissues in the submandibular space (figure 2). We diagnosed a Ludwig's angina and consulted an otolaryngologist and oral surgeon. The patient was admitted and immediately underwent drainage with antibiotic infusion. On culture of the discharge from the drainage, α -haemolytic *Streptococcus* was detected. Ludwig's angina is an aggressive and rapidly spreading cellulitis without lymphadenopathy and requires careful monitoring.³ Fortunately, the patient fully recovered in 10 days without any sequelae.

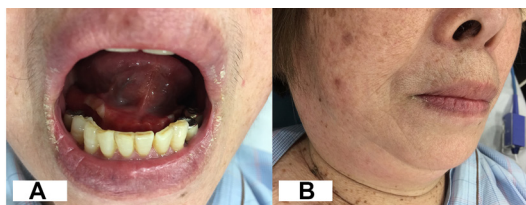


Figure 1 (A) Double tongue signs; elevation of the floor of the oropharynx caused by a bilateral infection of the submandibular space. (B) Bilateral submandibular swelling and erythema.

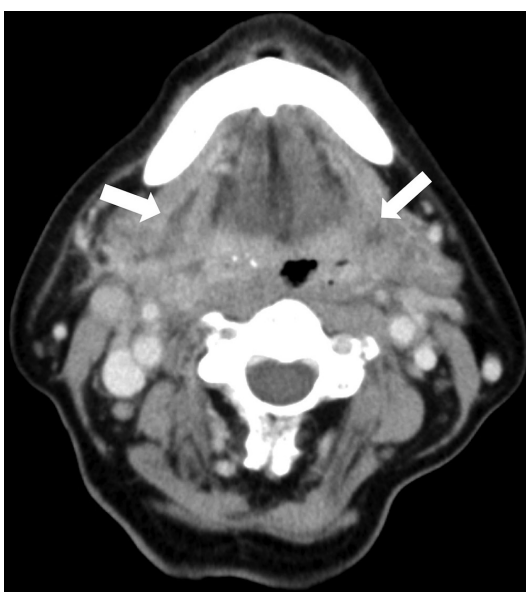


Figure 2 Enhanced CT of the neck revealed bilateral low-density areas along the submandibular space (white arrow) and swollen surrounding soft tissues.

Patient's perspective

私は医学、医療の向上の為にこの珍しい疾患を報告することに同意しております。どうか、将来的にこの疾患の治療方法を確立していただければと思っています。

I agree to report this rare disease for medical and clinical improvement. I hope if it is possible to improve the treatment in this rare disease in nearly future. (the author translated)

Learning points

- ▶ Ludwig's angina is a gangrenous cellulitis of the soft tissues of the mouth's floor and neck.
- ▶ Double tongue signs are a unique physical finding which involve an elevation of floor of the oropharynx caused by a bilateral infection of the submandibular space.

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