

中文題目：草綠色鏈球菌及 Fusobacterium 相關蜂窩性組織炎及鼻竇炎併發腦炎：  
案例報告

英文題目：Viridans streptococcus and Fusobacterium nucleatum related left orbital  
cellulitis, intension to sinus and brain: a case report

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#### Case Report

The patient is a 52-year-old woman with a history of Type 2 diabetes mellitus, who presented with fever with general malaise since 6 days before admission.

She had fever up to 38.2 Celsius degree since 6 days ago. She also had nasal congestion and rhinorrhea. Left eye swelling with redness and dyspnea was noted for 1 day. She denied abdominal pain, diarrhea, urgency, frequency or dysuria in these period. Laboratory data showed metabolic acidosis, hyperglycemia, ketonemia, leukocytosis and thrombocytopenia. With the impression of sepsis, suspect left orbital cellulitis, type 2 diabetes mellitus with ketonemia, she was admitted to medical intensive care unit. Noninvasive ventilator support was given for acute respiratory distress. Ophthalmologist was consult for left orbital erythema and swelling over left eye, who suggested orbital computerized tomography (Figure 1) that revealed acute sinusitis with fluid accumulation, and left orbital cellulitis. Blood culture yield Viridans streptococcus. Empiric antibiotic with ceftriaxone 2g q12h was administrated. Transthoracic echocardiography showed no evidence of vegetation. Functional endoscopy sinus surgery by ENT. Pansinusectomy, left was done. She was transferred to ordinary ward on day 9 of admission. Abscess from sinus via Pansinusectomy yield Fusobacterium nucleatum on day 11. Metronidazole 500mg Q6H was administrated. We switch antibiotics to Ampicillin/sulbactam for infection. However, she presented with left eyelid swelling, left lateral gaze limitation, right hemiplegia, left ptosis and slurred speech on day 22. Brain MRI showed suspicious left frontal, ethmoid, sphenoid, maxillary sinusitis. Suspect infectious process extension from left pterygopalatine fossa into left middle cranial fossa, cavernous sinus/Meckel's cave, around left side midbrain and left cerebellopontine angle, causing focal meningitis and encephalitis (Figure 2). Antibiotic Ceftriaxone and metronidazole were prescribed for infection and dexamethasone prescribed for anti-inflammation. Her right limbs muscle power has improving gradually under antibiotics treatment and rehabilitation program. We tried to discontinued ceftriaxone and slowly taper dexamethasone slow and keep observer clinical muscle power and conscious level. Fluconazole prescribed due to prolonged Intravenous dexamethasone use for meningitis and encephalitis, with oral thrush, suspect candidiasis. We keep Metronidazole 500mg Q6H therapy for the Fusobacterium

nucleatum. Her muscle power and orbital swelling was improving gradually.

#### Discussion

*Fusobacterium nucleatum* is a strictly anaerobic Gram negative rod found in oropharyngeal microbiota, mainly in the dental plaque. In a retrospective study<sup>1</sup> which included 78 patients with active infection. Abscesses (n = 43), bacteremia (n = 18) and bone infections (n = 8) were the most common types of infections. Abscesses were found in various organs (mostly skin, brain, pleura, liver). Lemierre's syndrome is characterized by thrombophlebitis of the internal jugular vein and bacteremia caused primarily from anaerobic organism, following a recent oropharyngeal infection<sup>2</sup>. Treatment involves prolonged antibiotic therapy. We report a case of *Viridans streptococcus* bacteremia related to left orbital cellulitis and sinusitis with extension into cavernous sinus, and brain causing focal meningitis and encephalitis. Culture from pansinusectomy yield *Fusobacterium nucleatum*. Lemierre's syndrome was also a concerned.

#### Reference

1. *Infection*. 2016 Aug;44(4):475-81
2. *Int J Emerg Med*. 2013 Oct 23;6(1):40.

#### Figure

Figure 1.

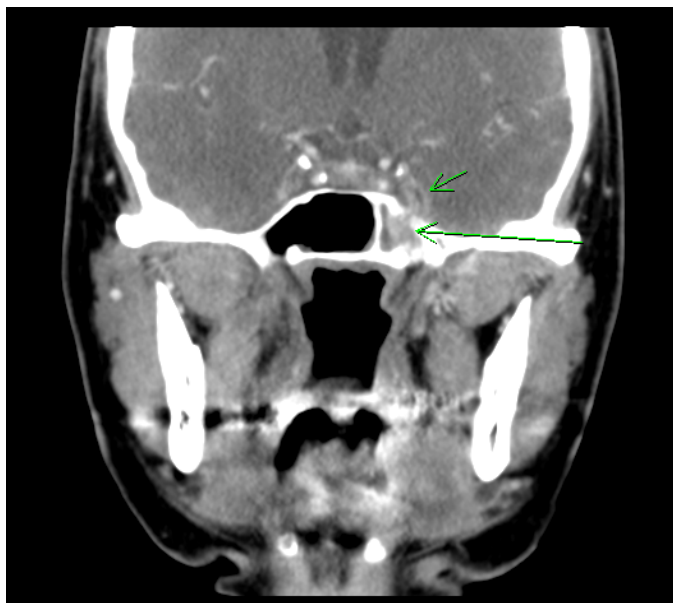


Figure 2.

