

中文題目:牛壞死桿菌及肺炎黴漿菌導致之急性咽喉炎併發雙側中耳炎及膿胸：
一 Lemierre 氏症之罕見病例報告

英文題目: Acute pharyngitis complicated by bilateral otitis media and pulmonary empyema caused by co-infections of *Mycoplasma pneumoniae* and *Fusobacterium necrophorum*: a rare case of Lemierre syndrome

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Introduction

Lemierre syndrome, also known as post-anginal septicemia or necrobacillosis,¹ It is characterized by bacteremia, internal jugular vein (IJV) thrombosis, and metastatic septic emboli secondary to acute pharyngeal infections. The disease is easily forgotten by modern physicians. The causative agents of Lemierre syndrome include anaerobic bacteria, *Streptococcus*, *Staphylococcus*, and *K. pneumoniae*.² Here, we reported a rare case of Lemierre syndrome in a patient with acute pharyngitis, who was complicated by bilateral otitis media and pulmonary empyema caused by co-infections of *Mycoplasma pneumoniae* and *Fusobacterium necrophorum*. The patient was proved by imaged study and successfully treated by chest tube drainage and antibiotic combination therapy.

Case Report

A 19-year-old male patient was admitted to our hospital with a 3-day history of fever, sore throat and dyspnea. On admission, consciousness was clear and his temperature was 39.2°C. Physical examination showed redness, swelling of pharyngeal mucosa. White blood cell count (WBC) was 32,020/mm³ with 89% neutrophils. Serum level of C-reactive protein was 36.2 mg/dL, GOT 65 U/L, GPT 123 U/L, LDH 423 U/L. The rapid test of influenza A & B showed negative finding. Initially, he received amoxicillin/clavulanate 1,000mg/200 mg intravenously every 6 hours as empiric therapy. But on the admission day 2, the fever persisted and bilateral ear canal had purulent discharge. On the admission day 3, the chest X-ray and CT scan showed infiltration of right lower lobe of lung with pleural effusion (Fig 1A and 1B) and left internal jugular vein thrombosis (Fig 1C). The patient received thoracocentesis and the pleural fluid analysis showed exudate and turbid color, which revealed WBC count 760/ mm³ with 97% neutrophils, LDH 2,107 U/L, total protein 5.4 g/dL (serum 6.4 g/dL), glucose 10 mg/dL (serum 97 mg/dL). The serologic test showed the titer of mycoplasma IgM was 6.5(positive) and IgG 1,280 (positive). On the admission day 6, the blood, pleural effusion and middle ear pus culture all showed *Fusobacterium necrophorum*. He received chest tube drainage and antibiotics treatment with levofloxacin 750 mg intravenous (IV) drip every 24 hours and IV metronidazole (500

mg every 6 hours) combination therapy for 10 days, then de-escalation to oral levofloxacin and metronidazole (same dosage as IV therapy) for a complete course of 21 days. The patient recovered well except bilateral eardrum perforation.

Discussion

The pathogenesis of Lemierre syndrome is the causative bacteria invade the pharyngeal mucosa, which is weakened by a preceding viral or bacterial pharyngitis, to the lateral pharyngeal space and result in subsequent internal jugular vein septic thrombophlebitis and complicating metastatic infections.^{1,2,3} *Fusobacterium necrophorum* is the pathogen most commonly implicated in Lemierre syndrome, followed by *F. necleatum*.^{3,4,5,6} Pneumonia or pleural empyema is the most common metastatic infection in Lemierre syndrome.³ Septic syndrome co-occurred by ear, neck and pulmonary empyema was rare emerging medical conditions. The course is usually rapid and irreversible, therefore timely diagnosis and promptly antibiotic therapy is important.

To our knowledge, this patient is the first case report of Lemierre syndrome complicated by bilateral otitis media and pulmonary empyema caused by co-infections of *F. necrophorum* and *M. pneumoniae*. He was successfully treated by pleural drainage, levofloxacin and metronidazole antibiotic combination therapy. A high index of suspicion is required for the differential diagnosis of acute pharyngitis with persisted neck pain and septic syndrome.

References

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Figures

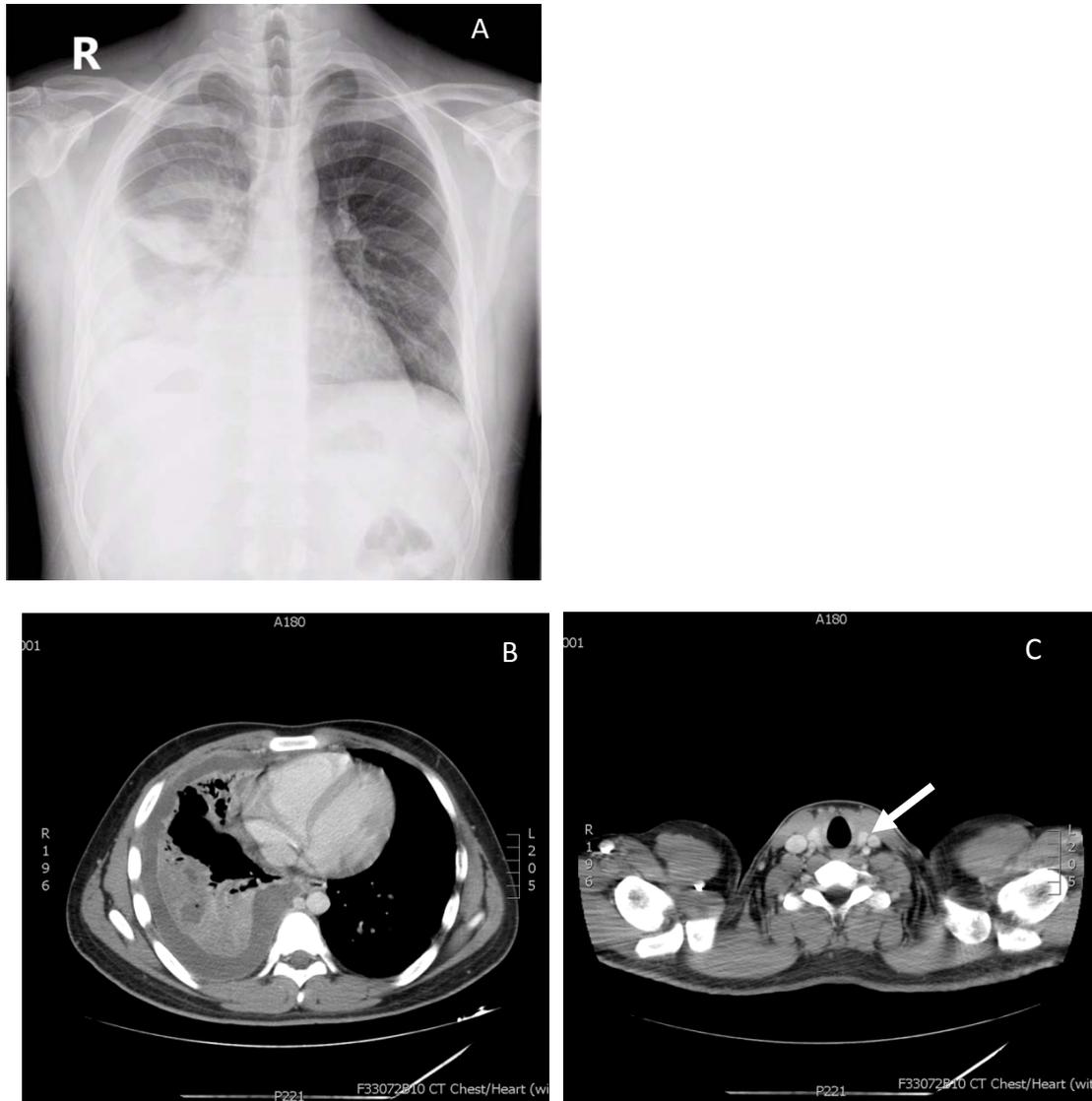


Figure 1. The chest x-ray and CT scan revealed infiltration and consolidation of right lower lobe of lung (Fig 1A and 1B). The Fig 1C showed left internal jugular vein thrombosis(white arrow site)