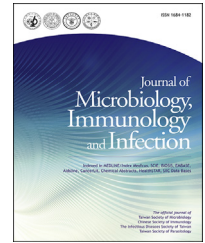




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Correspondence

Capnocytophaga sputigena pneumonia and bacteremia in a patient with diabetes and gastric cancer



Dear editor,

The pathogens of pneumonia or lung infections are various, however, the pathogens of some patients cannot be identified or very rare.^{1,2} Here, we presented a case with malignancy and diabetes hospitalized with both pneumonia and bacteremia with a rare pathogen.

A 84 years old male with multi-organ disorders, including diaplectic seizure, old infarcts at the bilateral basal ganglia, left corona radiata, right thalamus, gastric cancer, type 2 diabetic mellitus, hypertension, and benign prostatic hyperplasia. He just discharged from the hospital due to pneumonia 20 days ago. He presented with chest tightness with fever and for 1 day, and was sent to emergency department of a medical center. After survey at ED, bilateral pneumonia with pleural effusion was diagnosed by chest X-ray with leukocytosis (WBC 18180/ μ l), thrombocytopenia (Platelet 10,800/ μ l), and C-reactive protein 55.4 mg/L. Two sets of blood culture collected one from emergency department and one from ward showed *Capnocytophaga sputigena*, which identified by both matrix-assisted laser desorption/ionization–time-of-flight mass spectrometry MALTI-TOF (Bruker) and 16S RNA sequencing. However, sputum culture did not grow this pathogen. He was treated with piperacillin/tazobactam, and the pneumonia improved after treatment.

The *C. sputigena* is one member of *Capnocytophaga* species, which are gram-negative bacilli with facultative, anaerobic, capnophilic characteristics. There are 9 species in genus *Capnocytophaga*, and the infections caused by these species are frequently related periodontal problem or animal bites. Both immunocompetent and immunocompromised hosts are potential patients infected with these species. This pathogen could cause various types of human infections, including abscesses, bacteremia, chorioamnionitis, empyema, endocarditis, osteomyelitis, pleuropneumonitis,

sinusitis, and septic abortion. *C. sputigena* is known to be present in normal oral flora, which might cause human infections, especially among immunocompromised patients.^{3,4} *Capnocytophaga* species are found to be susceptible to a large number of antibiotics, of which penicillins, clindamycin, macrolides, broad-spectrum cephalosporins, and quinolones are outstanding examples.⁵



Figure 1. The initial Chest X-ray of the patient.

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Infections caused by *Capnocytophaga* species are rare, and species-level biochemical identification is difficult; thus, cases of *C. sputigena* infection are rarer reported worldwide. Till now, there is no report about *C. sputigena* related both infection in Taiwan. Herein, we reported the first case with diabetes mellitus and gastric cancer presented with pneumonia and bacteremia by *C. sputigena* whose clinical condition improved after piperacillin/tazobactam treatment (see Fig. 1).

Conflicts of interest

All the authors have nothing to disclose.

Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jmii.2017.11.005>.

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