

***Fusobacterium spp.* infection complicated with liver abscess and right lung empyema in an immunocompetent individual**

Lai Wei Joe¹, Chai Sze Wei¹, Mohd Fadhli Zil Ikram Karim¹, Rohaidah Hashim², Habib Abdul Hakim Esa²

¹Hospital Kuala Lumpur, Kuala Lumpur, Malaysia, ²Institute for Medical Research, Shah Alam, Selangor, Malaysia

ABSTRACT

Introduction: *Fusobacterium spp* is a rare cause of liver abscess with an incidence rate of 1 per 100,000. It is typically associated with oropharyngeal infections, but infection can occur in the gastrointestinal tract. Liver abscess commonly occurred as infection spread via the portal venous system. The mortality rate can be as high as 47%, hence early diagnosis is crucial for commencement of effective treatment. Infection with this pathogen should be considered in patients with liver abscess of unknown causes. **Case Presentation:** A 24-year-old gentleman with no known comorbidities presented high-grade fever, diarrhoea, vomiting, and abdominal pain. Blood investigations revealed leukocytosis and raised CRP and transaminitis. Chest X-ray shows extensive right pleural effusion. Ultrasound abdomen was done to investigate intra-abdominal collection and revealed hepatomegaly with segment VII partially liquefied liver abscess. CECT Thorax revealed right pleural empyema. Blood, pleural fluid, and pus cultures were negative. *Fusobacterium vincentii* detected from liver abscess drainage by 16S rRNA gene sequencing. Additionally, we uncovered that the patient had recently undergone tooth cavity removal. He recovered well with treatment and completed 8 weeks of antibiotics. **Conclusion:** This case illustrates an uncommon presentation of infection due to common colonizers of mouth microbiota, resulting in multiorgan involvement in an immunocompetent adult. This case highlights the role of molecular identification methods such as 16S RNA PCR, where conventional methods are unable to detect any causative pathogens.