# Proteus mirabilis pneumonia caused giant pneumatocele formation resistant to cephalosporins, quinolones and aminoglycosides treated without any complication

Fardin Ahmad Jawad, internal medicine specialist,
French Medical Institute for Mothers and Children, Kabul,
Afghanistan

## Abstract

Pneumonia due to Proteus mirabilis is very rare and can complicated to pneumatocele which is a transient intrapulmonary gas-filled cystic lesion in the lung parenchyma.

we report the case of a 65-year-old female presented with two-weeks of cough, blood-tinged sputum production, dyspnea and fever, she was febrile, tachycardic and breathing sound was decrease in left upper zone with oxygen saturation of 86% on ambient air. She had been treated with metoprolol and Escitalopram due to systemic hypertension and major depressive disorder. Patient admitted in French medical institute for mothers and children (FMIC) with provisional diagnosis of community acquired pneumonia.

A plain chest radiography revealed a thin-walled, air-filled cystic space in the left upper lobe. The initial laboratory examinations showed leukocytosis with neutophilia and lymphopenia , elevated CRP and ESR. a broad spectrum antibiotic of Ceftazidime with oxygen therapy started. The day of admission, she went to further workup, Contrast-enhanced computed tomography showed a giant pneumatocele in left upper lobe. In the following day bronchoscopy and bronchoalveolar lavage was performed. bacterial culture detected extended-spectrum β-lactamase (ESBL) producing Proteus mirabilis which was sensitive to all tested Carbapenems and resistant to all tested quinolones, Cephalosporins and aminoglycosides. We stopped ceftazidime and administered a four weeks course of Meropenem. five days after initiating of meropenem fever was subsided, CBC, ESR and CRP returned to normal. In six weeks follow up chest CT, pneumatocele with pneumonia was resolved completely.

This is the first case of pulmonary pneumatocele due to Proteus mirabilis in our institute which was resistant to all tested cephalosporins, quinolones and aminoglycosides. we conclude that more attention should be paid to antibiotic-resistant Proteus mirabilis , because of its rapid progression and antiobiotics resistant which require improved diagnostic and treatment algorithms for better treatment.

## Recent Publications

1. Fardin Ahmad Jawad (2021) Factors contributing to delayed diagnosis and treatment of breast cancer and its outcome in Jamhoriat Hospital Kabul, Afghanistan Journal of Cancer and Science Reseach 2021, Volume 06, 2576-1447



Jawad Fardin is a Senior at Department of Adult medicine, French Medical Institute for Mothers and Children, Kabul, Afghanistan. He specialized in internal medicine in Jamhoriat hospital. As a Clinician, he has rich experience of treating internal medicine patients. He worked in first and only oncology center in Jamhoriat Hospital, He was also joined as medical director in Agha Medical Center and currently working in French Medical Institute for Mothers and Children. His main research area is oncology and rare case of internal medicine disease. He independently completed a research project entitled “Factors contributing to delayed diagnosis and treatment of breast cancer and its outcome in Jamhoriat hospital Kabul, Afghanistan”. He is currently working on other two research papers.

Email:jawad.fardin@fmic.org.af

**Notes/Comments:** our institiute is the top one in the Afghanistan and one of the best in Asia. The International Hospital Federation (IHF) has recognized the French Medical Institute for Mothers and Children (FMIC) as the gold winner of the Sultanate of Oman Excellence Award for Health Services in crisis in 2021.

Presenting author details
Full name: Ahmad Jawad Fardin
Contact number: 0093700726026

Twitter account: jawad fardin (@jawadfardin5)
Linked In account: linkedin.com/in/jawad-fardin-b04849156
Session name/ number: organized session
Category: Oral presentation