Cavitary pneumonia entails a broad differential diagnosis including infectious and non-infectious diseases.

Melioidosis is a serious disease caused by *Burkholderia pseudomallei*.

Often called “The Great Mimicker,” melioidosis presents with an array of clinical signs and symptoms ranging from skin lesions to cavitary pneumonia.

Melioidosis associated with septic shock results in a high mortality rate, underlying the importance of early identification and prevention of disease.

**Case Presentation**

**History of Present Illness**
A 73 y/o Vietnamese gentleman presented with a two week history of fever, left-sided pleuritic chest pain, and a non-productive cough. Patient resided in Vietnam, working in rice fields in a village near Saigon, for two years. The patient had previously resided in South Carolina for 18 years prior to retiring to Vietnam.

**Physical Exam**
Vital signs stable, afebrile. Thin, male with palpable axillary and supraclavicular lymphadenopathy bilaterally. Lung exam with decreased breath sounds in all lung fields. Benign heart and abdominal exam. No skin ulcers, abscesses, or lesions.

**Labs**

<table>
<thead>
<tr>
<th>K+</th>
<th>Na+</th>
<th>Glucose</th>
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<tr>
<td>136</td>
<td>142</td>
<td>100</td>
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**Imaging**

- CT chest: Cavitary left upper lobe lesion, prominent hilar and perihilar lymphadenopathy bilaterally.
- CT abdomen: Hepatic lesions.
- MRI abdomen: Splenomegaly.

**Hospital course**

- Intravenous therapy for 2 weeks with ceftazidime, meropenem, or imipenem followed by oral eradication therapy with TMP-SMX, folic acid, and doxycycline for 3 to 6 months.

**References**


**Discussion**

**Epidemiology**
Melioidosis is caused by *Burkholderia pseudomallei*, a facultative intracellular, gram-negative bacterium. Endemic in northern Australia and southeast Asia: Thailand, Malaysia, Vietnam, Singapore, Indonesia, and Myanmar. 0 to 5 cases reported in the U.S. Mode of acquisition by ingestion, inhalation, or percutaneous inoculation of contaminated water and soil.

**Pathogenesis**
The *Burkholderia* genus includes 40+ species, with *B. pseudomallei*, *B. mallei*, and *B. cepacia* being the most pathogenic species. Similar to *M. tuberculosis*, melioidosis can remain latent and reactivate; hence, the term “Vietnamese time bomb” attributed to Vietnam war veterans with reactivation melioidosis.

**Clinical Signs and Symptoms**
The most common presentation is pulmonary melioidosis with fevers, chills, night sweats, rigors, myalgias, chest pain, cough with / without sputum, and cavitary lesions on chest X-ray. Bacteremic melioidosis has a poor prognosis, 36.7-53% mortality. In the setting of pneumonia, bacteremic melioidosis has a mortality rate of 67.3-72%. With risk factors, bacteremic melioidosis usually results in septic shock.

**Diagnosis**
Main method of diagnosis is culture. Gram stain may show characteristic bipolar “safety pin” staining, gram-negative bacilli. CXR reveals consolidation, necrotizing cavitary lesions, or pleural effusion. CT and MRI may detect spleen, liver, kidney, and prostate abscesses.

**Treatment**
Intravenous therapy for 2 weeks with ceftazidime, meropenem, or imipenem followed by oral eradication therapy with TMP-SMX, folic acid, and doxycycline for 3 to 6 months.

**Conclusions**
1. Although rare in the United States, melioidosis has become of increased significance due to cases seen in travelers and immigrants of endemic regions.
2. Melioidosis has a wide array of clinical manifestations ranging from localized skin lesions, to pulmonary cavitary pneumonia, to bacteremia with septic shock.
3. Melioidosis with bacteremia and pneumonia is associated with a high mortality rate.
4. Early recognition and detection of melioidosis is key in correct diagnosis and treatment in preventing mortality.