Assuming Consumption:
Cough, night sweats and weight loss do not always equal TB
Joanna Kimball MD; Jessica Newman DO; Lisa Clough MD
Department of Internal Medicine, University of Kansas Medical Center, Kansas City, KS

Background

- **Histoplasma capsulatum** is a common endemic mycosis found worldwide that is especially endemic in the Ohio and Mississippi River valleys.

- The infection is typically asymptomatic but can be associated with pulmonary or disseminated disease.
- Clinical manifestations of pulmonary disease include: pneumonia, pulmonary nodules, cavitations, mediastinal or hilar lymphadenopathy, pericarditis, mediastinal granuloma, fibrosing mediastinitis, SVC syndrome, dysphagia, arthralgias, and erythema nodosum.

Case Presentation

- A 22-year-old Hispanic male presented with a 2-month history of progressive dyspnea, dry cough, pleuritic chest pain, night sweats, fatigue, 20-lb weight loss, and diarrhea.
- Exposure history included prior incarceration, remote inhaled cocaine use, work in a tire warehouse, and exposure to mold and bird droppings in his home.

Diagnosis

- Definitive diagnosis is made by histopathology or cultures.
- Antibody and antigen detection are noninvasive means of diagnosis.
- Diagnosis is often complicated by delay in seroconversion and low sensitivity in nonsystemic disease.

Evaluation and Hospital Course

- 22 y/o M with B-symptoms, cough, SOB, weight loss
- **CXR**
- **CTA chest**
- **Echo**
- **PET**
- **Mediastinoscopy**

- Pericardiocentesis
  - 750 cc serosanguinous fluid drained.
  - Cytology w/ acute on chronic inflammation.
  - Gram stain and culture negative.
  - No malignant cells.

- Infectious workup:
  - HIV, cryptococcus, beta-D glucan, blastomyces, TB IFN-γ release assay negative
  - AFB stain of bx negative
  - GMS stain of bx with rare yeast forms consistent with Histoplasmosis
    - Histo urine and serum antigen negative
    - Histo immunodiffusion with negative M and H band
    - Histo Complement fixation titers 1:16 for mycelial phase and 1:256 for yeast

- Rheumatologic workup:
  - Negative for ANA, Anti-Sm, RNP, Anti-CCP, SSA & SSB Ab

- Malignancy workup:
  - Flow cytometry negative
  - No malignant cells on biopsy

Discussion

- Variable presentations and limitation of testing in non-disseminated disease can delay the diagnosis of pulmonary histoplasmosis.
- Pulmonary histoplasmosis may be complicated by enlarging, encapsulated, caseous mediastinal lymph nodes.
- Pericarditis occurs in 5-10% of symptomatic cases and is caused by an immunologic reaction to histoplasmosis in the adjacent mediastinal lymph nodes rather than disseminated disease.
- Mild-moderate acute pulmonary disease, including mediastinal granuloma and lymphadenitis w pericarditis, is treated with itraconazole for 6-12 weeks.

References

Histoplasmosis: Sources of Histoplasmosis. (2015). CDC
http://www.cdc.gov/fungal/diseases/histoplasmosis/cause.html