INTRODUCTION

- *Histoplasma capsulatum* is a dimorphic fungi endemic to central and eastern U.S.¹
- The organism is found in soil contaminated by bird or bat droppings.¹
- Infection occurs when it is aerosolized and inhaled.¹
- The disease is a self-limited respiratory infection but can lead to severe pulmonary or disseminated disease in those who are immunocompromised.²

CASE DESCRIPTION

PHYSICAL EXAM

<table>
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<tr>
<th>T: 41.7 °C</th>
<th>BP: 85/48</th>
<th>HR: 83</th>
<th>RR: 20</th>
<th>SpO₂: 97% RA</th>
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- Ill-appearing, no petechiae or rash
- No erythema or exudate in posterior oropharynx, no cervical or inguinal LAD
- Lungs clear to auscultation bilaterally
- Mild RUQ abdominal tenderness, no hepatosplenomegaly

DIFFERENTIAL DIAGNOSIS

Viral infection, macrophage activating syndrome, bacterial infection, fungal infection, tick-borne disease, gastroenteritis, atypical flare of juvenile dermatomyositis

TESTS

- **WBC**: 2.7  
  **ANC**: 1100  
  **Hgb**: 11.9  
  **Plts**: 79  
  **ALT**: 69  
  **LDH**: 685  
  **Ferritin**: 1643  
  **CRP**: 2.46 mg/dl

- **CXR**: negative for opacifications, or other abnormalities
- **Blood cultures**: no growth
- **Peripheral smear**: leukopenia w/ normal leukocyte morphology
- **Negative autoimmune work-up**: ANA, C3/C4, dsDNA, hepatitis panel
- **Negative infectious work-up**: Respiratory pathogen panel, Gastrointestinal pathogen panel, Fungitell, Galactomannan, CMV, EBV, Tularemia, Mycoplasma, Bartonella, Brucella, and other tick-borne illness
- **Positive infectious work-up**: Histoplasma urine antigen and serum antigen/antibody tests

FINAL DIAGNOSIS & TREATMENT

- Disseminated Histoplasmosis
- Completed two-week course of IV amphotericin B while inpatient and will continue oral itraconazole for 12 months.

DISCUSSION

- Symptoms of disseminated histoplasmosis usually include nonspecific complaints of prolonged fever, fatigue, and anorexia.²
- Clinical findings typically include hepatosplenomegaly, pancytopenia, transaminitis, and hyperbilirubinemia.²
- 40–50% of immunocompromised pediatric patients with disseminated disease have negative chest x-ray.³
- Fungal culture is the gold standard of diagnosis.⁴

CONCLUSION

In an immunocompromised patient, even without obvious exposure, a fever and systemic illness should raise concern for disseminated histoplasmosis.

REFERENCES


CASE PRESENTATION

- 10-year-old female presented to PEC with 10 days of fever (T-max 103.7 °F).
- Associated symptoms included fatigue, myalgias, anorexia.
- Denied recent travel or significant exposures.
- Immunizations up to date.
- History of Juvenile Dermatomyositis managed with mycophenolate and methotrexate.