Paracoccidiomycosis and HIV/AIDS: A Common Problem in an Uncommon Location

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Paracoccidioidomycosis
and HIV/AIDS:
A Common Problem in an Uncommon Location

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Disclosures

- Nothing to disclose
Objectives

- To recognize that immunocompromised patients can present with acute, disseminated reactivation of subclinical endemic mycoses many years following the primary inoculation.

- To recognize the importance of international travel and the implications it has on the illnesses we may see in our practice.
Case

- 31yo F presents w fever, rash, LAD, 10# wt loss, cough

- **PMHx:**
  - HIV/AIDS (diagnosed 2 weeks ago)
  - Cholecystectomy

- **Meds:** oral contraceptives, prn acetaminophen

- **SoHx:**
  - Born and raised in Brazil, moved here 4 years ago
  - Denied tobacco, alcohol, or drug use.
Physical Exam

- All normal except:
  - VS: P-122  T-102°F
  - LAD: 1-2cm, nontender
    - posterior cervical chain, axillae (and retropertitoneal on CT scan)
  - Rash: diffuse, erythematous, papular, though some with cloudy vesicles or umbilications
The Rash...
Labwork

- CD4: 37u/L (5%)
- VL: 30,400 copies/mL
- AST: 59u/L
- ALT: 72u/L
- Alk P: 826u/L
- Fungal cultures **NEGATIVE** for blastomycetes, coccidioides, histoplasmosis

A skin biopsy was done......
The Bug......

GMS STAIN 100x
Paracoccidioidomycosis

- Dimorphic fungus *Paracoccidioides brasiliensis*
- Lives in soil at 25°C
- Mother cell produces multiple daughter buds at one time giving it its characteristic “pilot’s wheel” configuration
- Acquired by inhalation and direct contact
Paracoccidioidomycosis

- Endemic to central Brazil and other areas of South and Central America, specifically areas of high rainfall
- Commonly occurs in farm workers
- 15:1 male-female ratio, likely due to more male farm workers

On further questioning, our pt lived on a farm in an endemic area in southern Brazil as a child
Infection

- Immunocompetent host
  - Usually a subclinical, latent infection
  - Minority develop acute symptoms (usually LAD, HSM, lungs, also mucosal surfaces, adrenal glands, CNS, and bones)
Infection

- Immunocompromised
  - Reactivation that leads to disseminated disease
    - LAD, CNS and lung involvement, bone and skin lesions
    - When CD4 < 200, hepatic involvement
Diagnosis

- Culture and serology
  - Serology only in endemic areas, often false negative in HIV+ patients

- Actual visualization of organism
  - “pilot’s wheel”
Incidence in US

- Very rare
- Multiple cases throughout the world associated with HIV/AIDS, however, only in endemic areas
- No cases reported in the literature outside of endemic areas
Conclusions

- Immunocompromised patients can present with disseminated reactivation of a previously subclinical, latent endemic mycosis.

- What may be completely normal in another country, may be completely abnormal in your own region. Remember the importance of a thorough travel and immigration history in all your patients.