

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 retroperitoneal on CT scan)
 - Rash: diffuse, erythematous, papular, though some with cloudy vesicles or umbilications

The Rash...





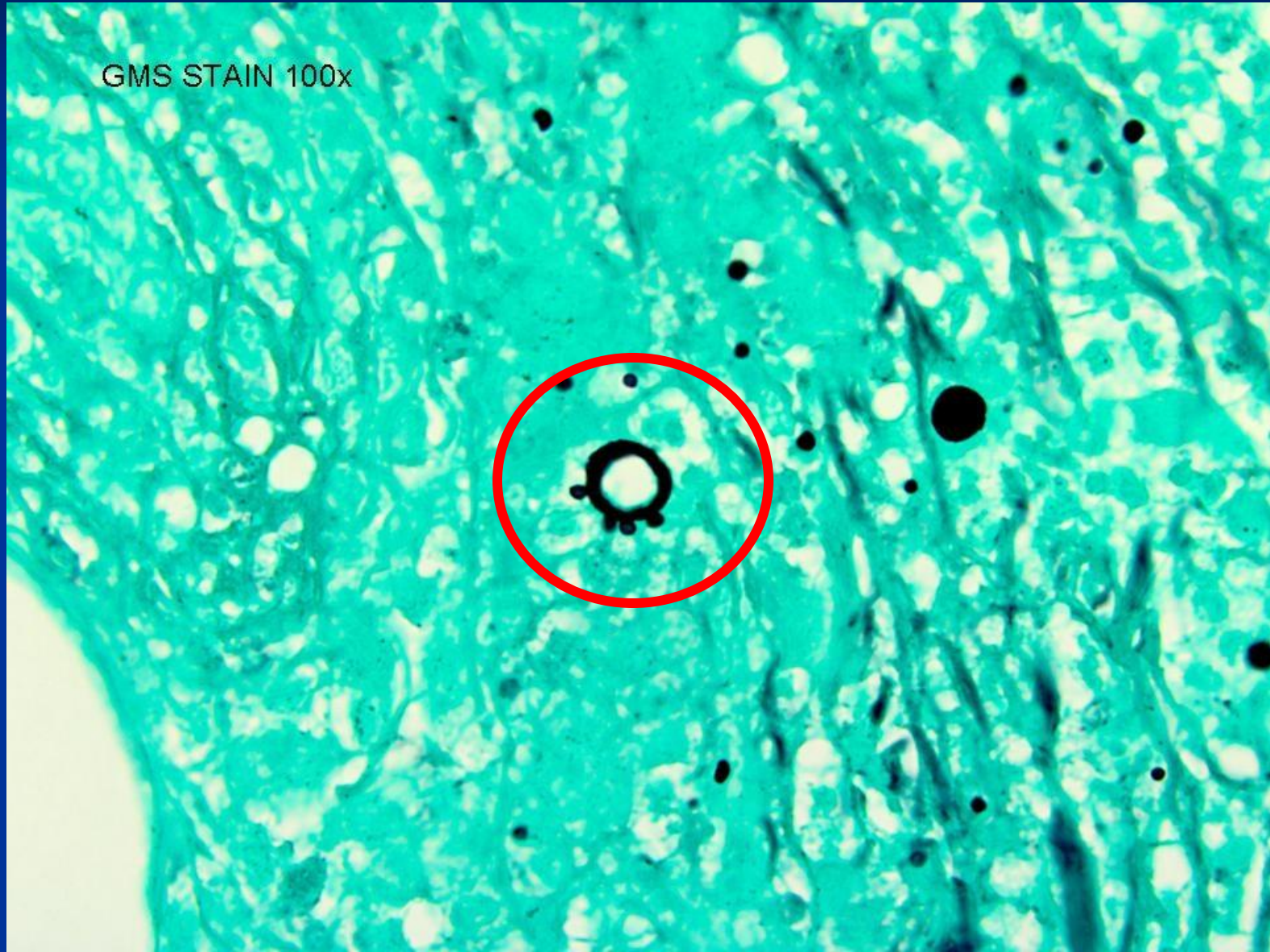


Labwork

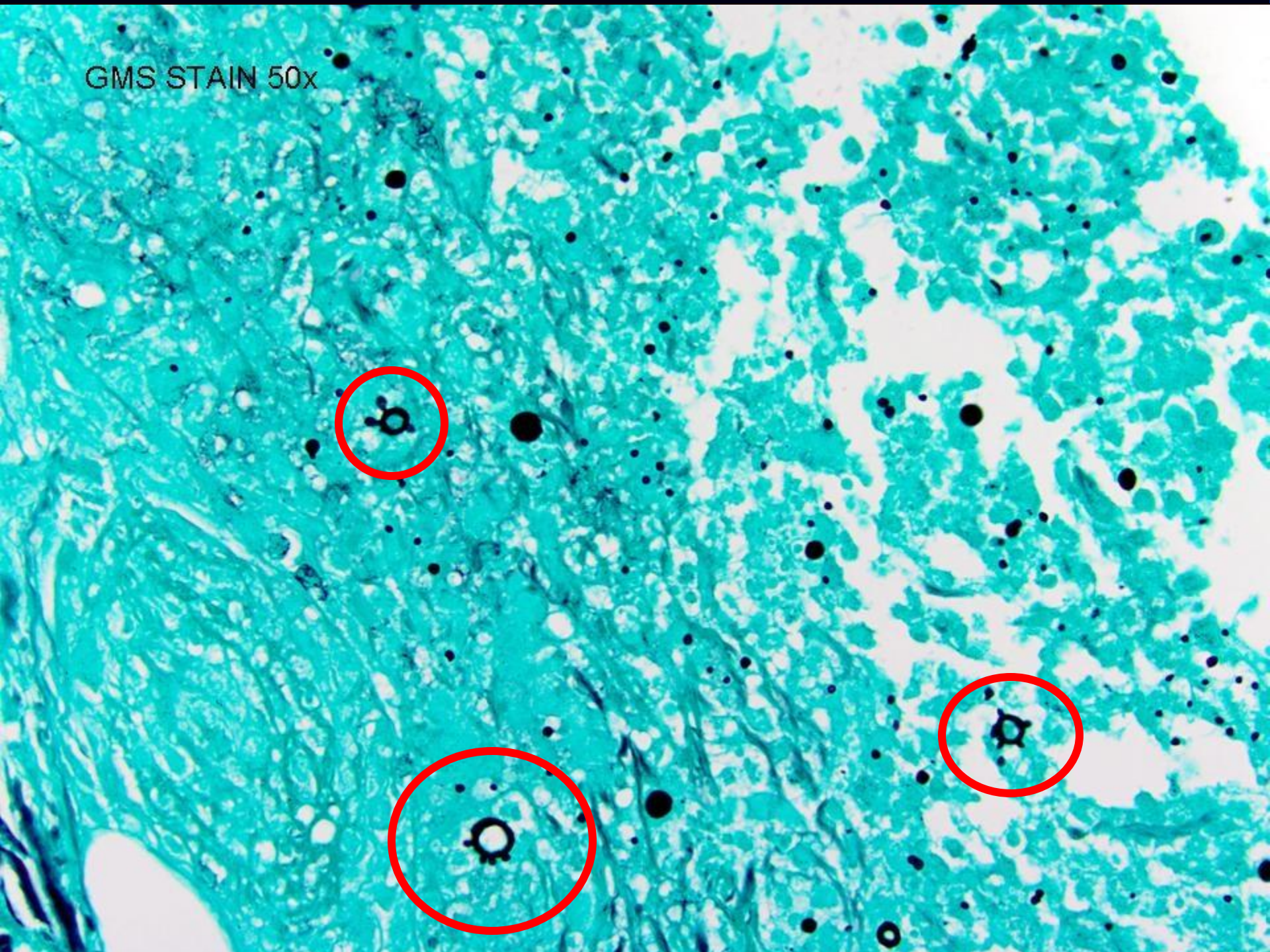
- CD4: 37u/L (5%)
- VL: 30,400 copies/mL
- AST: 59u/L
- ALT: 72u/L
- Alk P: 826u/L
- Fungal cultures ***NEGATIVE*** for blastomyces, coccidioides, histoplasmosis

A skin biopsy was done.....

The Bug.....

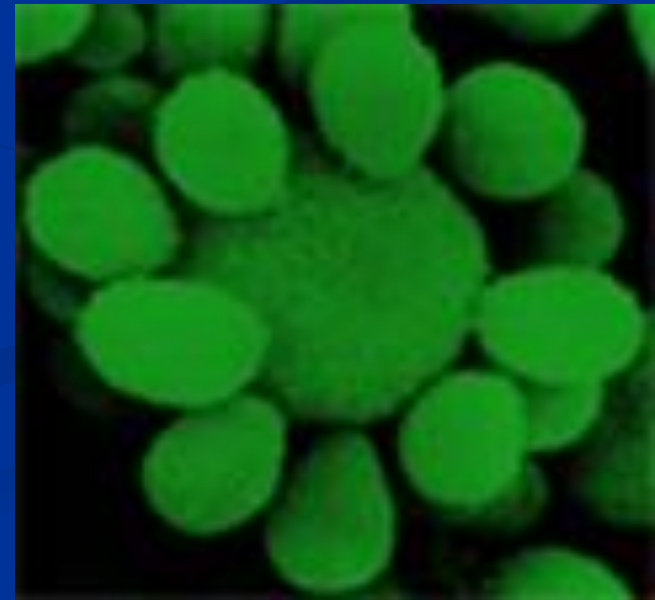


GMS STAIN 50x



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.