

## Introduction

HIV infection has historically been associated with a large array of opportunistic infections and malignancies leading to increased morbidity and mortality in the HIV+ population. However, with the advent of ART, many of these diseases have become increasingly rare in modern medical practice<sup>1</sup>.

## Case Presentation

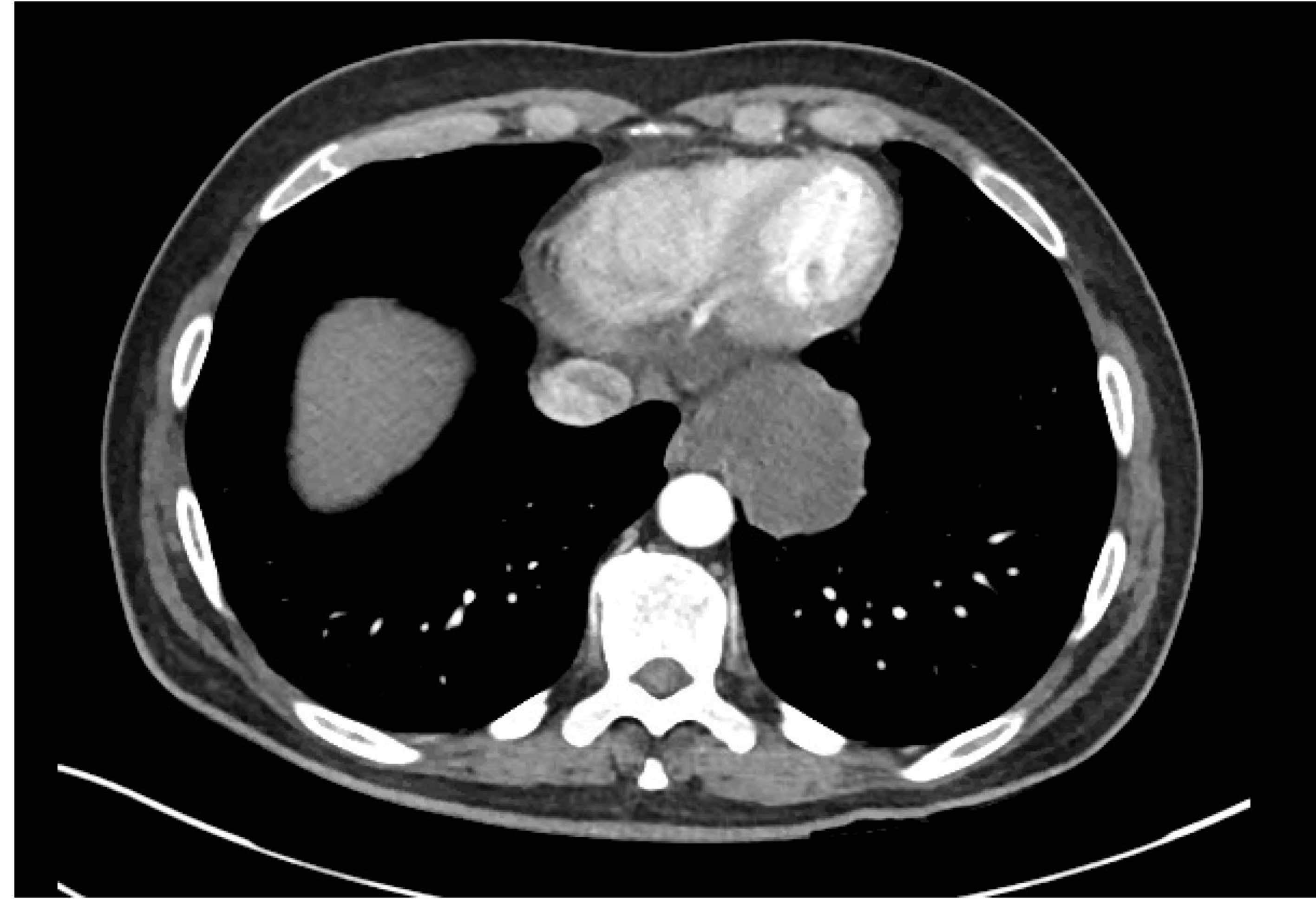
44yo Spanish-speaking transgender female with PMH of HIV infection diagnosed 15 years prior and tuberculosis which was diagnosed and treated at the time of HIV diagnosis.

Patient presents with 1-month history of worsening pressure-like headache with associated: fevers, chills, night-sweats, photo/phonophobia, nausea, vomiting, cough with bloody sputum, worsening generalized weakness and fatigue.

Patient was diagnosed and treated with unknown ART while in Mexico. She has been in the United States for around 2-years and has not had access to HIV medications during this time. She visited an ER 1-month prior to presentation due to her headache at which time her CD4 count was checked and found to be 32. A CXR at the time was read as within normal limits.

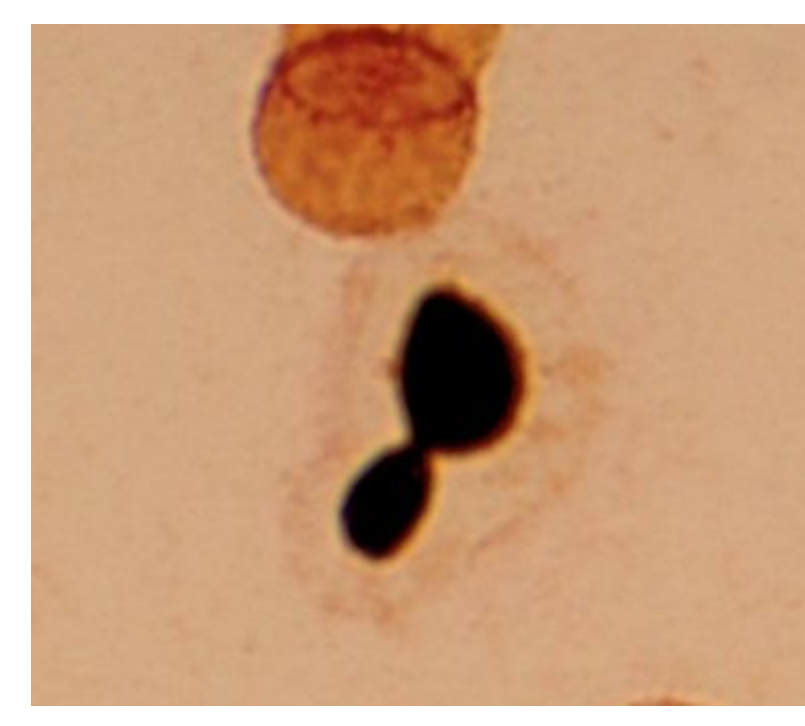
On arrival in the ED, patient was noted to be afebrile, normotensive and satiating well on room air. Labs were significant for a WBC of 5.2, BUN 14.1, Cr 0.58 and lactic acid of 1.0

CT Chest with IV contrast demonstrated:  
Lobulated low-density mass in the medial right lower lobe abutting the mediastinum of unclear etiology.

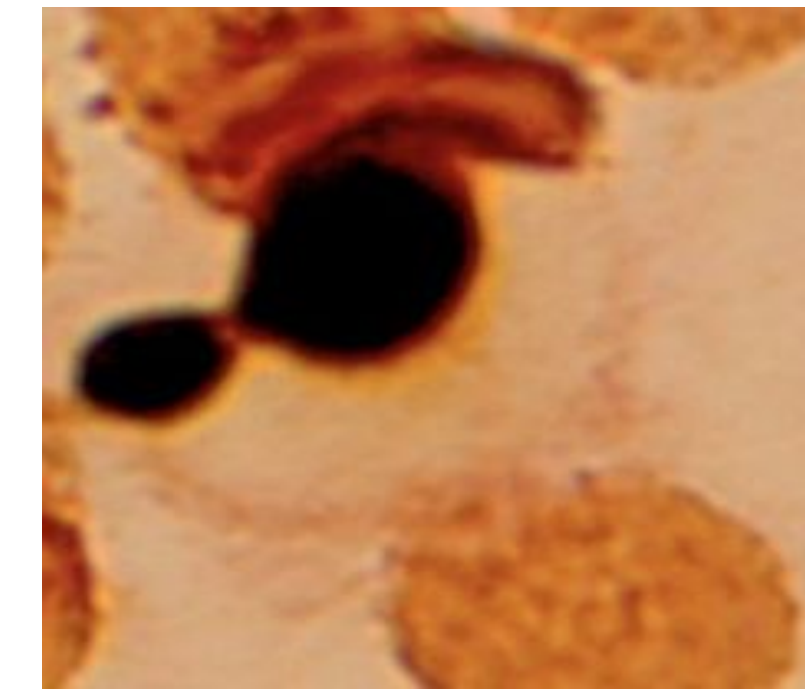


Lumbar puncture was performed with the following:

- Opening pressure – 14 cm H2O
- WBC – 81
- RBC – 15
- Glucose – 13
- Protein – 116
- Gram stain + yeast
- India Ink + encapsulated yeast



Fungal culture was identified as *Cryptococcus gattii* on culture day 16.



Subsequent biopsy of pulmonary mass revealed necrotic tissue with fungal spores consistent with a cryptococcoma.

## Discussion

*Cryptococcus gattii* is a rare encapsulated yeast which was recently implicated in an outbreak of primarily pulmonary infections in British Columbia and the NW United States.

## Discussion

In this outbreak, the most common conditions associated with infection were advanced age, smoking status and HIV infection<sup>2</sup>. About 40% of cases were identified in patients who were immunocompromised in some way, such as HIV infection, active malignancy or steroid use. An additional case report conducted in the southeast United States identified 3 additional cases of *C. gattii* infections associated with HIV infection<sup>3</sup>.

Although *C. gattii* has been more commonly associated with pulmonary infections in immunocompetent patients, our case as well as the cases seen in the Pacific Northwest and Southeast United States raises the possibility that *C. gattii* infection may be an underrecognized opportunistic infection in those living with HIV.

## Conclusions

*Cryptococcus gattii* poses particular challenges with treatment due to the relative longer treatment course required. Serial taps of the CSF are needed to ensure sterilization of the CSF before transitioning to oral antifungals are possible. Our patient required 3-weeks of intravenous amphotericin and flucytosine before transition to orals could be achieved. Four additional lumbar punctures were performed before sterilization of CSF occurred.

## References

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2. M, Galanis E. Risk factors for *Cryptococcus gattii* infection, British Columbia, Canada. *Emerg Infect Dis.* 2011;17(2):193-199. doi:10.3201/eid1702.101020
3. Bruner KT, Franco-Paredes C, Henao-Martínez AF, Steele GM, Chastain DB. *Cryptococcus gattii* Complex Infections in HIV-Infected Patients, Southeastern United States. *Emerg Infect Dis.* 2018;24(11):1998-2002. doi:10.3201/eid2411.180787
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