A Pulmonary Nodule in an HIV patient

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Radiology and Pathology Correlation
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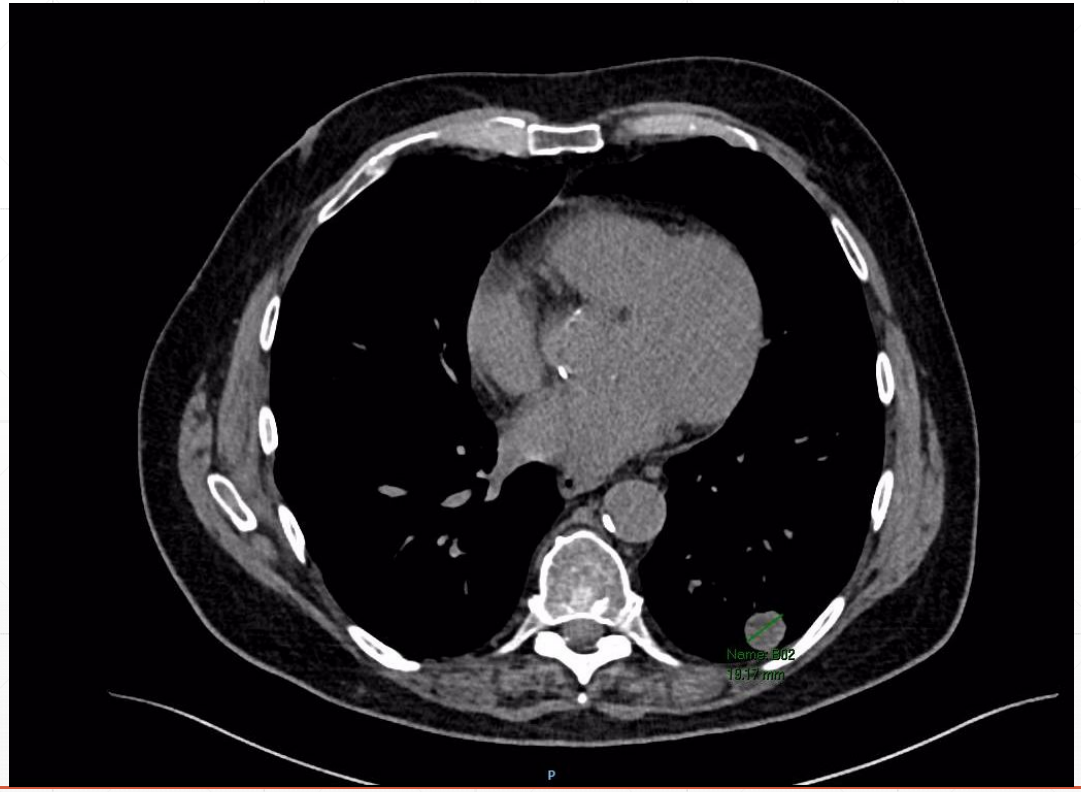
HPI

- Patient JL is a 72yo male with PMH of HIV and chronic Hep B who initially presented with cough and congestion on 6/6/17. A CXR at that time revealed a 1cm left lower lobe nodule.
- He had historically been compliant with his HAART, but had stopped taking it for the past 3 years. He established care at UVA on 4/24/17, at which time his CD4 count was 98.
- He is on appropriate PPX with Bactrim and Azithromycin
- He has not left Virginia in the past year, and has not travelled outside the US in 10+ years.

Imaging

- This nodule was then further characterized with a CT on 6/19 showing a 1.9cm nodule with two adjacent satellite nodules <1cm in size.
- A PET CT on 6/29 showed the same nodules with mildly increased FDG uptake (SUV max 2.81, mean 2.07), as well as mildly increased FDG uptake in left lower paratracheal lymph nodes, favored to be reactive.
- Based on these findings, there was low index of suspicion for malignancy.
- CT-guided biopsy was planned for further characterization of the lesion

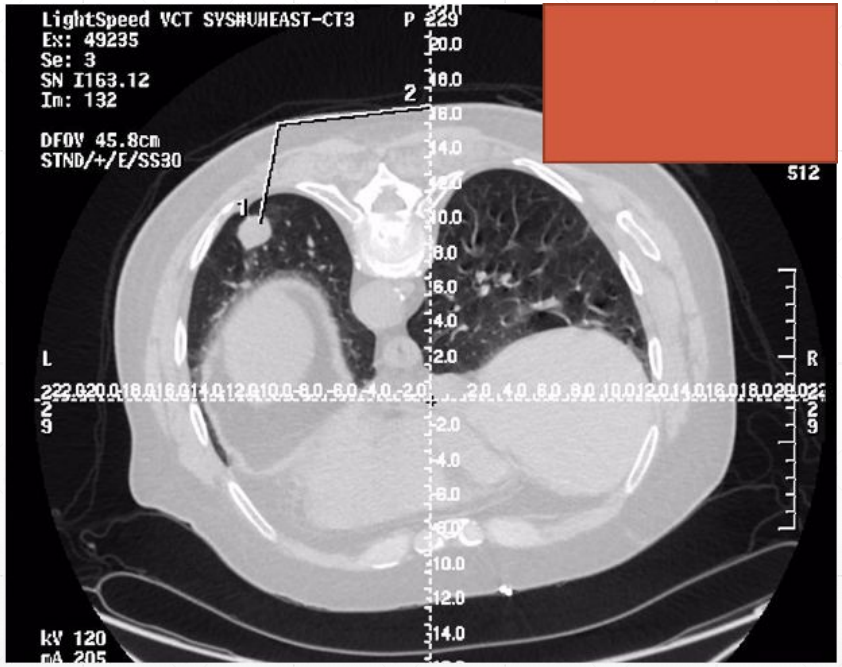
Key Image

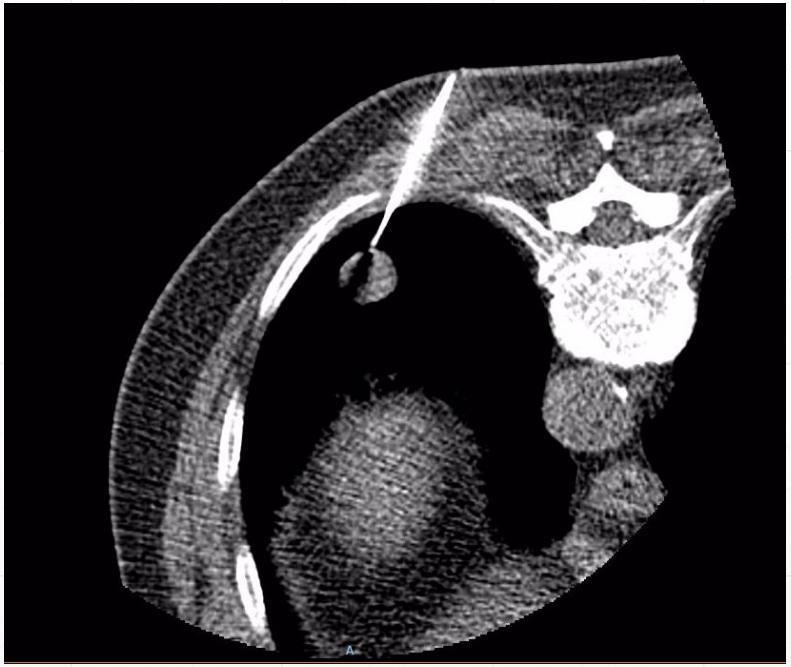


Procedure

- He underwent CT-guided FNA and core biopsy under conscious sedation on 8/22/17
- FNA examined during the procedure showed yeast forms that were morphologically consistent with Cryptococcus as well as chronic inflammation and necrosis
- Core biopsies were then taken for further staining and cultures

Procedure Images



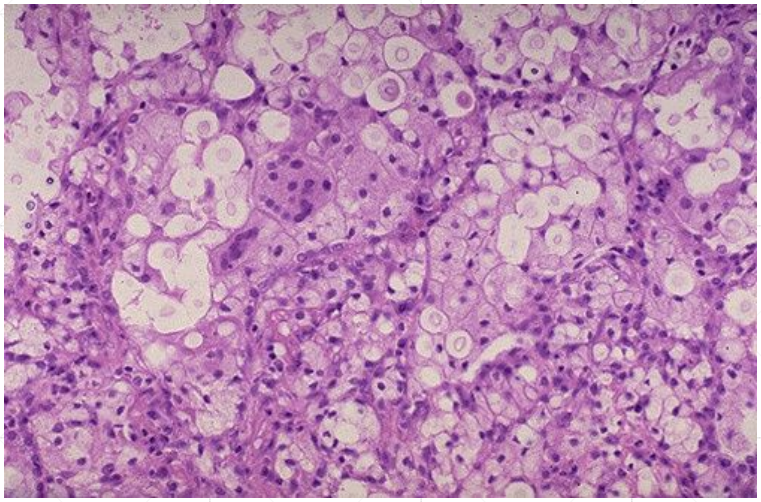


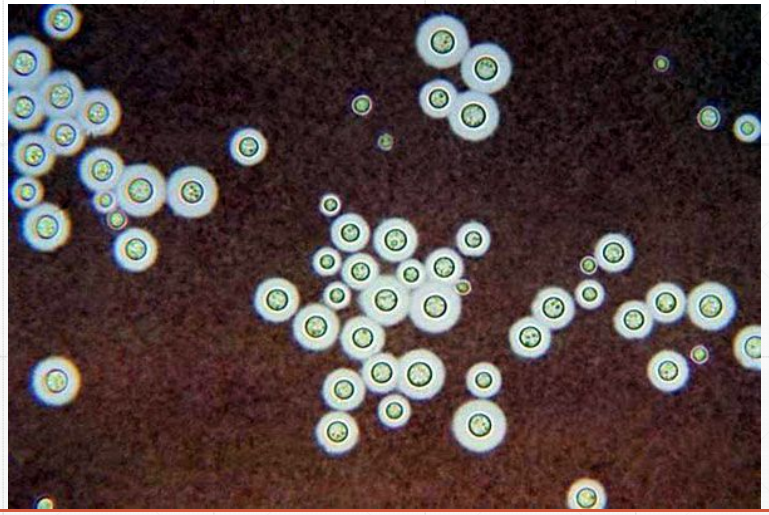
Procedure (cont.)

- During the procedure, the patient developed a large pneumothorax
- The air was evacuated with 60cc syringes and the pleural space was then filled with a 30cc blood patch
- Post-procedure and follow-up CXR revealed no remaining PTX and the patient was discharged from RADU

Pathology

- Numerous yeast forms of variable size surrounded by a clear halo representing the gelatinous capsule
- Stains with India Ink





Follow-up

- Although we are awaiting final Cx results, his presentation, imaging, and biopsy results are suggestive of Cryptococcal PNA
- Pt will follow-up in ID clinic when final culture results are available
- There are no RCTs comparing treatment regimen, but the consensus-based standard is Fluconazole, 200-400mg/day for life

Works Cited

- William E. Dismukes, Mycoses Study Group Cryptococcal Subproject; Practice Guidelines for the Management of Cryptococcal Disease, *Clinical Infectious Diseases*, Volume 30, Issue 4, 1 April 2000, Pages 710–718, https://doi.org/10.1086/313757