A cryptic case of Cryptococcal pneumonia

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Case Report: Cryptococcal pneumonia and empyema without disseminated infection is exceedingly rare. In this case report, we present a patient who developed Cryptococcal pneumonia complicated by empyema secondary to chronic steroid use.

Case: A 63-year-old male with a history of chronic cervical myelopathy with C6-7 disc bulging, adrenal insufficiency secondary to opioid use on Hydrocortisone 20 mg twice a day, and pulmonary hypertension presented with right-sided pleuritic chest pain and a productive cough. He denied any associated fever, chills, night sweats, or weight loss. His CT chest showed a loculated right sided pleural effusion with compressive atelectasis and airspace opacities. He underwent thoracentesis which showed an exudative pleural effusion with lymphocyte predominance: 10,858 WBCs (33% segmented neutrophils, 46% lymphocytes, and 20% monocytes). Pleural fluid LDH was 954, glucose 67, and protein 4.5. Cultures were initially negative and the patient was discharged on oral Levofloxacin for suspected bacterial pneumonia and parapneumonic effusion. Eight days after his thoracentesis, the patient's pleural fluid cultures grew Cryptococcus neoformans var grubii. Cryptococcal serum antigen was elevated at 1:320. A lumbar puncture was performed to evaluate for evidence of disseminated disease and was negative for Cryptococcal antigen in the CSF. He started Fluconazole 400 mg daily with an anticipated 6-12 month course.

Discussion:
Cryptococcal neoformans empyema is a rare manifestation of cryptococcal infection and has primarily been reported in patients on immunosuppression for solid organ transplant, chemotherapy, or with HIV. This case highlights the risk of immunosuppression secondary to chronic steroid use and the importance of maintaining a broad differential for parapneumonic effusions in the setting of immunosuppression. This patient had an indolent presentation of his disease with non-specific CT findings and minimal clinical symptoms but timely and thorough work-up of his pleural effusion allowed quick identification and treatment of cryptococcal neoformans empyema. Given isolated pulmonary disease he was treated with fluconazole monotherapy.

(Figure on next page)

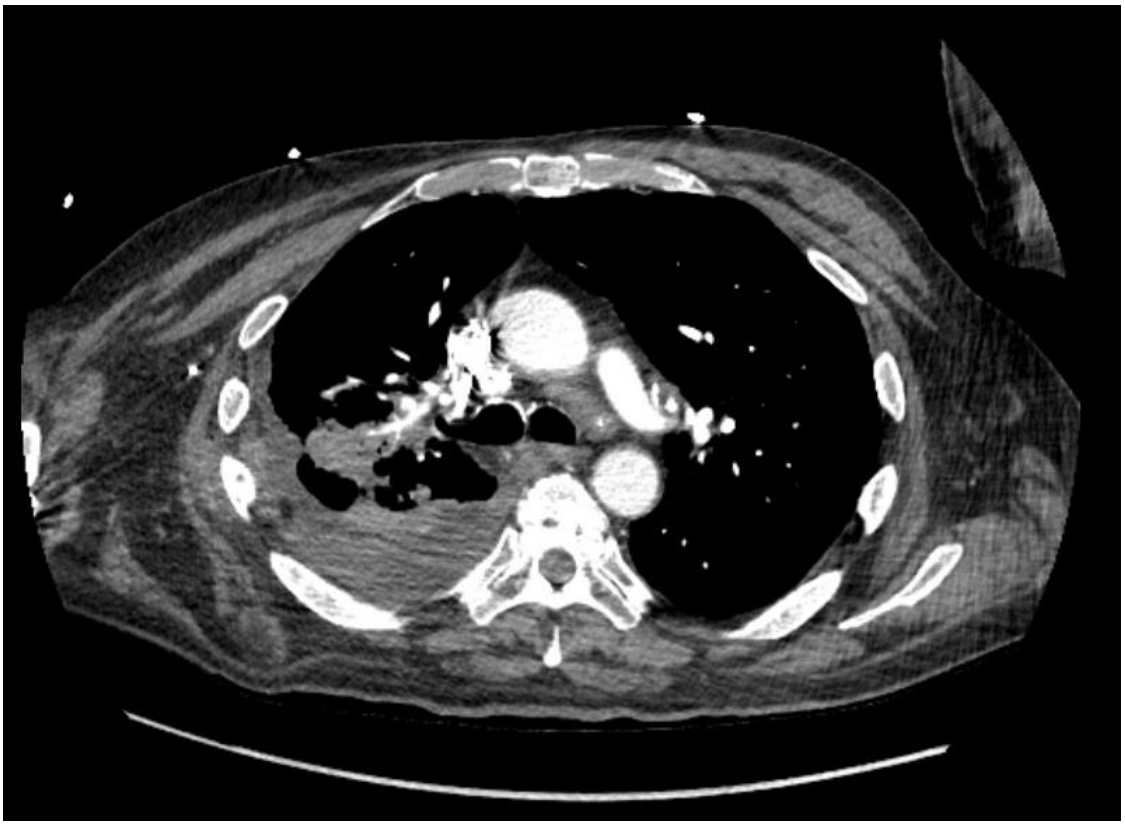

Figure 1: CT chest with contrast showing moderate right sided loculated pleural effusion as evidenced by its convex shape and septations.

References:

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