A Case of Disseminated Cryptococcosis

Suneet Johal, MD, Shadi Jafari-Esfahani, MD, Maria Najam, MD, Luis Rosas, MD
UTRGV- Internal Medicine Residency Program at Knapp Medical Center

Background:
Cryptococcus is an invasive fungal infection, typically acquired through inhalation. It is found in soil contaminated with bird droppings and it can disseminate to the lungs, meninges, and skin. In the United States, the incidence of cryptococcosis is estimated to be about 0.4-1.3 cases per 100,000 population with the most common species being Cryptococcus Neoformans and Cryptococcus Gatti. Cryptococcosis is commonly seen in HIV patients, however, immunocompromised individuals with cancer, solid organ transplants, or chronic glucocorticoid therapy are also at high risk.

Case Presentation:
A 69-year-old male with history of polymyositis and granulomatosis polyangiitis on chronic steroids presents to the ER with chief complaint of progressively worsening shortness of breath and confusion of three days duration, as per patient's wife. Patient had been noted to be more lethargic and confused with increased productive cough. Chest x-ray and high-resolution CT demonstrated bilateral dense multilobar infiltrates and he was started on Ceftriaxone, Azithromycin and Solu-Medrol for multilobar pneumonia. A serum cryptococcal antigen was ordered by infectious disease which came back positive with titers of 1:2560 and thus, he was started on Amphotericin B and Flucytosine. A lumbar puncture was then performed which showed Cryptococcal Neoformans and Cryptococcus Gatti positive in CSF. Unfortunately, the patient's condition deteriorated, and he expired.

Conclusion:
Cryptococcosis predominantly occurs in HIV patients. We need to have a high index of suspicion in immunosuppressed patients including patients on chronic steroids that are at high risk of developing cryptococcosis. Prompt recognition and treatment is critical as there is a high mortality rate.