

as disease progression may later preclude the biopsy procedure. We share this case to raise awareness of this rapidly progressive and diagnostically troubling interstitial lung disease while emphasizing the importance of clinicopathologic correlation.

### **Epstein - Barr Virus (EBV) Associated B-Cell Lymphoma: An Unusual Involvement Of The Heart And Kidney In An HIV Positive Patient With Concurrent Cytomegalovirus (CMV) Pneumonia And Pneumocystis Jirovecii Pneumonia (PCP)**

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**Introduction/Objective:** We report a 68-year-old man with Human immunodeficiency virus (HIV) infection and significant weight loss during the past two years who presented with dyspnea. He was not receiving any treatment for HIV infection, and his viral load and CD4 count were 178000 copies/ml and 8 cells/mm<sup>3</sup>, respectively. The radiologic examination was concerning for Pneumocystis jirovecii pneumonia. The Bronchoalveolar lavage was positive for Pneumocystis jirovecii. The patient expired despite the comprehensive treatment, and the autopsy was requested.

**Methods:** The autopsy showed heavy lungs with diffuse consolidation and white discoloration involving all lobes. The left ventricular wall and right kidney cortex showed foci of white discoloration measuring 1 and 0.8 cm, respectively.

**Results:** The microscopic examination of lungs showed concurrent CMV pneumonia, and PCP confirmed by immunohistochemical staining for CMV and GMS special stain. The histologic evaluation of the heart and the right kidney and immunohistochemical staining for CD20 and CD3 in addition to in situ hybridization (ISH) for EBER revealed infiltrative malignant cells, which were positive for CD20 and EBER and negative for CD3. The EBV associated B-cell lymphoma involving the heart, and the right kidney was diagnosed.

**Conclusion:** EBV is involved in human lymphomagenesis, particularly in HIV patients. There is a tendency for the lymphoma to involve the extranodal sites, including the CNS, gastrointestinal tract, liver, and bone marrow. However, the involvement of the heart and kidneys occurs very rarely. The autopsy findings of Lung co-infection with PCP and CMV and EBV associated lymphoma involving atypical locations is a rare and unique combination of AIDS-defining illnesses in this patient.

### **Exophiala Dermatitis Isolated From Blood In Patient With Steroid Use**

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**Casestudy:** Exophiala dermatitidis is a dematiaceous mold that is associated with subcutaneous, central nervous system and pulmonary infections; osteomyelitis; and disseminated disease. Isolation of E. dermatitidis from patients with mild symptoms may be difficult to interpret whether is a contaminant or asymptomatic patient with serious infection. However, it is important to diagnose asymptomatic patients early in the stage because of up to 25% mortality rate.

**Results:** 77-year-old male with history of chronic obstructive pulmonary disease presented to his pulmonologist with cough. He was started on azithromycin and steroids. His cough worsened and he was transitioned to levofloxacin with continuation of steroid treatment. In addition, he developed fatigue, weakness, poor appetite, chills and nights sweat along with some urinary complaints. His chest X-ray showed infiltrates and he was diagnosed with left lower lung pneumonia and urinary tract infection and was treated with doxycycline and ciprofloxacin. Blood cultures were drawn. Additional past medical history was not significant.

Blood culture became positive on day 4 of incubation. Gram stain showed yeast-like cells, but the blood culture multiplex PCR was negative. Serum cryptococcus antigen was negative. Three days later, a dark shiny olive-colored colony with dark obverse side was isolated. It grew at 42 C. Microscopic examination revealed hyaline and pigmented hyphae with brown conidia. It was identified as Exophiala dermatitidis and confirmed by the state public health laboratory. Blood cultures drawn after hospital admission remained negative. Patient's symptoms improved with antibiotic treatment. Therefore the clinicians believed that the E. dermatitidis was a probable contaminant and patient was discharged with follow-up. During the follow-up process he developed respiratory infection with Coronavirus (HKU1, NL63, 229E, OC43). Follow-up continues.

**Conclusion:** Blood cultures are not sensitive for mold infection especially for an uncommon contaminant like E. dermatitidis, it may be difficult to decide whether a positive culture is a real result or not. Fungal antigen tests such as beta-D-glucan test may be helpful in distinguishing between invasive infection and contaminant. Additionally, we believe that in our case, steroid use could have caused a temporary immunosuppression and led to Exophiala dermatitidis infection.