

Aspergillus Galactomannan Aantigenemia in a Human Immunodeficiency Virus Infected Patient with Penicillium Marneffeii Fungemi: A Case Report

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Background/Objective

Of patients with penicilliosis, 73.3% had positive Aspergillus galactomannan index of >0.5. The mortality rate of untreated penicilliosis is 100%. Any delay in the initiation of antifungal therapy is associated with poor outcome whereas the therapeutic response is good with early institution of treatment.

Method

A 45-year-old man of HBV disease suffered from fever for 4 days. He was brought to emergency department on April 30, 2015. CXR showed mixed alveolar and interstitial infiltration over right lower lung field, probably pneumonia. Arterial blood gas showed pH, 7.508; PCO₂, 23.4 mmHg; PO₂, 169.9 mmHg; HCO₃, 18.8 mmol/L; Base Excess, -2.1 mmol/L. Laboratory data showed a white-blood cell (WBC) count of 8,600/μL with segment 71%; platelet count, 21,900/μL; C-reactive protein, 163.5mg/L. Influenza virus type A and B Ag showed negative. Antibiotic therapy with piperacillin-tazobactam (10days), moxifloxacin (10days) and Tamiflu (5days) was given. Then he was admitted to intensive care unit for dyspnea, intermittent fever and shock. Anti-HIV and HIV-1 Western Blot showed positive. HIV viral load was 189267 copies/mL. CD4+Lymphocyte count was 4 /uL. Sulfamethoxazole-trimethoprim iv (10days) and po (25days) with methylprednisolone iv (5days) were used for pneumocystis jirovecii pneumonia. Voriconazole (9days) was used for Aspergillus infection due to Aspergillus antigen index was high (0.84). Blood cultures yielded Penicillium marneffeii. Fungizone iv (14days) and itraconazole po (7days). Follow blood culture became negative. Cardiac echo showed no obvious intra-cardiac vegetation. He was transferred to the ward on May 12, 2015.

Result

CXR showed increased infiltration over bilateral lung fields, as the clinical condition was stable, he was discharged on June 5, 2015.

Conclusion

Our case showed that Aspergillus galactomannan index was elevated in HIV patients with penicilliosis. The use of the Aspergillus antigen assay may facilitate earlier diagnosis and treatment of Penicillium marneffeii infection for HIV-infected patients.