

中文題目：急性人類免疫不全病毒感染快速進展至後天免疫缺乏症候群

英文題目：A case of primary human immunodeficiency virus infection rapidly progressed to acquired immune deficiency syndrome

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Introduction

Primary human immunodeficiency virus (HIV) infection is defined as first three to six months after infection and characterized by high viral load and transient low CD4 T cell count. Opportunistic infection is rare in primary HIV infection. We presented a fatal case with primary HIV infection who presented with severely immunocompromised state complicated with cytomegalovirus pneumonitis.

Case Presentation

A 31 year-old male with pulmonary tuberculosis 3.5 years ago without complete treatment was admitted twice for fever and right upper lung cavitation. The empirical antituberculosis agents (anti-TB) were given for suspected recurrent pulmonary tuberculosis without microbiological evidence. This time he presented with bilateral pneumonia related, 3 weeks after anti-TB. Initially, the broad spectrum antibiotics with piperacillin-tazobactam (pip/tazo) and levofloxacin were prescribed and he was admitted to medical intensive care unit (MICU) for severe community-acquired pneumonia. The Trimethoprim-Sulfamethoxazole (TMP/SMX) and adjunctive steroids were added for suspected pneumocystis pneumonitis (PCP). The serum cytomegalovirus (CMV) viral load revealed 2719 copies/ml, and then ganciclovir was given for suspected CMV pneumonitis 14 days after presentation. He was ever tested HIV enzyme-linked immunosorbant assay (HIV ELISA) negative 3 months before this presentation. This time repeated HIV ELISA turned positive but the HIV western blot revealed indeterminate. He was confirmed with primary HIV infection for detectable HIV viral load (289207 copies/ml), although he denied any risk exposure. The CD4 absolute count at same time was 3.0 cells /uL indicating acquired immunodeficiency syndrome (AIDS). The respiratory failure and shock developed after admission, but he refused endotracheal intubation and further resuscitation. He died 19 days after presentation.

Discussion

The average time from HIV infection to AIDS was around 8-10 years. Progression to AIDS occurred rarely in early stage. There are many factors which influence the speed of HIV progression, included increasing age, host genetic factors, dual HIV infection, higher viral load, chemokine receptor tropism(X4 strains) and immune escape from CD8 T cell, etc. Co-infection with other pathogens, like tuberculosis and CMV, were reported to accelerate the speed of HIV progression to

AIDS.

The opportunistic infections in primary HIV infection are rarely recognized in clinical practice.

We shared this case to emphasize that 1) co-infection with other pathogen can enhance HIV progression to AIDS and 2) early recognition of opportunistic infections in primary HIV infected patient is crucial to save the life.