Markers of adipocytokine and endothelial injury in antiretroviral-naive HIV patients

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Background: Untreated human immunodeficiency virus (HIV) infection is associated with increased risk for cardiovascular disease. Current data are limited and contradictory. Our aim is to investigate the markers of adipocytokine, endothelial injury and thrombotic activity and explore whether there are cardiovascular disease risk factors in antiretroviral-naive HIV patients.

Methods: Clinical data and venous blood samples were collected from 43 ARV naive AIDS patients during February–October 2009 in our center, and compared with 17 healthy subjects. Plasma leptin, adiponectin, soluble intercellular adhesion molecule-1 (sICAM-1), D-dimer were measured by enzyme-linked immunosorbent assay (ELISA). 4 markers and cholesterol, triglyceride, fasting plasma glucose were compared between the 2 groups. Spearman correlations between the significant markers and CD4+ T cells, CD8+CD38+/CD8+ %, CD8+HLA-DR+/CD8+ %, HIV viral load were examined among HIV-infected participants. Analyses were conducted by using Stata version 7.

Results: 88.37% of the 43 patients were sexually infected by HIV and the mean CD4+ T count was (133±82) cells/µL, HIV RNA was (4.42±0.66)log copies/mL. HIV-infected participants, compared with healthy subjects, had lower leptin, adiponectin (P = 0.0005, P = 0.0030) and higher sICAM-1 (P = 0.0000). No significant differences exist in cholesterol, triglyceride, fasting plasma glucose. For HIV-infected participants, sICAM-1 tended to correlate with CD8+CD38+/CD8+ % and HIV viral load (r = 0.3389, P = 0.0374; r = 0.4512, P = 0.0182).

Conclusion: Persons with untreated HIV infection have lower leptin, adiponectin and higher sICAM-1 levels and the relationship of these markers to HIV-mediated atherosclerotic risk requires further study.

No impact of TangHerb on the efavirenz plasma concentration among HIV-infected patients in China

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Background: The use of traditional Chinese medicine is widespread in China, even among HIV-infected patients. However, the potential drug interaction has not been well studied. We evaluate the impact of TangHerb (a proprietary Chinese medicine for AIDS treatment) on the efavirenz plasma concentration and the safety and efficacy of efavirenz when used in combined with TangHerb.

Methods: Fifty HIV-infected patients taking efavirenz containing antiretroviral regimens were enrolled. Twenty of them were taking TangHerb (eight capsules 3 times per day) together while 30 of them were not. Steady-state plasma concentrations of efavirenz were determined using HPLC-MS detection. Efavirenz associated central nervous system side effects and the frequency of viralogic failure was observed.

Results: No significant difference of the efavirenz concentration between these two groups was found (2765 ng/ml vs 2325 ng/ml, P = 0.25). No factors including age, gender, body mass index, alanine transaminase and CD4 cell count were associated with efavirenz concentration in multi-regression analysis. The frequency of efavirenz associated central nervous system side effects and viralogic failure were also comparable among these two populations.

Conclusion: TangHerb does not impact the EFV steady plasma concentration and its efficacy. It could be used safely together with EFV.

The clinical features of opportunistic manifestations in HIV/AIDS

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Objective: To promote the diagnostic rate of ocular diseases complicated with HIV/AIDS, understand clinical features of HIV-associated ocular diseases, enhance curative effects and improve the prognosis.

Patients and Methods: The clinical data and ophthalmic records in 92 cases of HIV/AIDS patients hospitalized from October 2008 to February 2010 have been collected retrospectively; and we focus on clinical features, ocular manifestations, ophthalmic examination, CD4 counts and opportunistic infections, in which ocular manifestations and CD4 counts were analyzed statistically with χ² test.

Results: We found that prevalence of retinopathy, most common HIV-associated ocular disease, was 34.8%; the