Abstract of dissertation entitled

Is phase angle a prognostic marker in Chinese HIV patients in HARRT Era?

Submitted by

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Background: Weight loss and tissue wasting are common in patients with human immunodeficiency virus (HIV) infection, particularly in the later stages of the disease. Body-composition studies with bioelectrical impedance analysis (BIA), identified phase angle as an adverse prognostic marker.

Objective: To evaluate whether phase angle is a prognostic marker in Chinese HIV patients and whether it retains its role in patients on highly active anti-retrovirus treatment (HAART).

Methods: Consecutive subjects who attended Integrated Treatment Centre were recruited from 1st January 2003 to 31st March 2005. Inclusion criteria included Chinese HIV patients with documentation of HIV RNA level, CD4 lymphocyte count, asymptomatic at the time of recruitment, not on HAART and had BIA within 2 weeks of consultation. Patients were excluded if they had opportunistic infection within 3 months of BIA measurement. Clinical condition at the end of 31st May 2005 was traced and the role of baseline phase angle in predicting disease progression was analyzed with the Kaplan-Meier analysis. Proportional hazards were calculated in mono- and multivariate Cox models.

Results: One hundred fifty-one Chinese patients fulfilled the inclusion and exclusion criteria and 95 did not receive HARRT during the study period. Significant correlations between CD4+ cell count, viral load, and the phase angle were found. In patient not on HAART treatment, CD4, viral load, phase angle and age of the subjects were of prognostic value in predicting disease progression. In multivariate Cox models, time to clinical progression (in patients not on HAART) was predicted only by HIV viral load (p=0.002), and phase angle (p=0.01). None of the factors identified in patients not on HAART was of prognostic value in patients who were on HAART.

Conclusion: In Chinese HIV patients, phase angle has a role in predicting clinical progress, though this is only limited to patients not on HAART therapy.

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