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In this Section

Main Menu and Search


Browse by Day

Browse by Program

Author Index

Disclosure Index

Browse Handouts

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245730 Distinction of clinical disease progression between different HIV-1 subtype in a molecular epidemiology study

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Background It has been proposed that subtype-related human immunodeficiency virus type 1 (HIV-1) variability may influence disease progression. This study represented the 3 different HIV-1 subtype infection patterns in risk factors, disease progression and treatment evaluation in Taiwan. **Methods** A random sample of 464 HIV-1-infected patients attending HIV clinics at China Medical University hospital in Taiwan were subtyped using phylogenetic analysis of env gene since 2007-2009. Risk factors were randomized collected from the questionnaires. Subtypes difference AIDS-free survival was compared on the time period since initial into hospital to the number of CD4 cell decline (< 200 copies/ml) by using a survival analysis. **Results** We identified three major circulating subtypes which including 319 subjects with CRF07_BC (68.75%), 29 with CRF01_AE (6.25%), and 116 with subtype B (25.0%). Among patients with known risk factors, 98.0% of Injecting drug users (IDUs) had the CRF07_BC virus, whereas 2.0% of CRF01_AE infections and none of subtype B infections were acquired through injecting drugs. Furthermore, the relative hazard of AIDS-free survival was 0.325 (0.216-0.487) for CRF07_BC and 1.135 (0.607-2.123) for CRF01_AE versus subtype B. By using Kaplan-Meier estimates of the AIDS-free survival time, the mean survival months of Subtype B, CRF01_AE and CRF07_BC are 30.584 months, 3.167 months and 48.471 months, respectively (P<0.001 by the log-rank test). But, the AIDS-free survival was almost the same after HAART treatment. **Conclusions** Patients infected with prevalent CRF07_BC were as likely to achieve longer AIDS-free survival as persons infected with subtype B.

Learning Areas:

Basic medical science applied in public health
Epidemiology

Learning Objectives:

Compare the 3 different HIV-1 subtype infection patterns in risk factors, disease progression and treatment effects in Taiwan.

Keywords: HIV/AIDS, Epidemiology

Presenting author's disclosure statement:

Qualified on the content I am responsible for because: I am qualified to present because I oversee programs such as disease prevention, molecular epidemiology and treatment evaluate programs.

Any relevant financial relationships? No

I agree to comply with the American Public Health Association Conflict of Interest and Commercial Support Guidelines, and to disclose to the participants any off-label or experimental uses of a commercial product or service discussed in my presentation.

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