17. Determinants and Outcomes of Nevirapine Hypersensitivity

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Background: Nevirapine (NVP) is a drug used in combination antiretroviral treatment (ART) of the human immunodeficiency virus that has been associated with a potentially life-threatening hypersensitivity reaction occurring within the first 3 months of treatment.

Aim: To establish risk and outcomes associated with NVP hypersensitivity (HSR).

Methods: A population-based cohort study was conducted in treatment naïve patients starting NVP based ART between May 1997 and June 2003. Possible NVP HSR was defined as those permanently stopping NVP within either 30 days, or within 90 days with a coding of adverse drug event or elevation of liver transaminases (AST, ALT). Determinants examined included age, gender, ethnicity, hepatitis C status, injection drug use, concurrent ART, baseline CD4+, viral load, baseline transaminases and physician experience. Viral genotyping was compared between baseline and follow-up within one year following NVP initiation. Logistic regression and Cox Proportional Hazard analyses were performed to examine risk, outcomes and death.

Results: A total of 67/686 (9.8%) met the definition for NVP HSR. In univariate logistic regression analysis, there was only a trend towards an association between female gender and NVP HSR. Future virologic suppression occurred in 440/613 (71.8%) of the NVP tolerant group vs. 4/67(6.0%) of the HSR group ($p<0.001$). In multivariate Cox analysis the risk of non-accidental death was 2.50 x in the HSR group ($p=0.004$).

Conclusions: In our cohort of treatment naïve patients initiating NVP, possible NVP HSR is a marker of poor outcomes including failure of future virologic suppression and death.