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HLA – B 17 Prevalence in HIV-1 Infected Patients under Antiretroviral Treatment

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ABSTRACT Abacavir hypersensitivity reaction is a multi-organ systemic illness that occurs in approximately 5-8% of HIV-infected patients who initiate therapy with abacavir — associated strongly with HLA B*5701. Population studies have reported frequency of serologically defined HLA B17 splits B57 and B58 antigens, with molecular subtypes 31 for (B*5701-B*5731) and 28 for B*5801-B*5828) as of April 2010. HLA B57 frequency is 5 -20% in India. The incidence of abacavir hypersensitivity reported from Caucasian clinical trials is approximately 8% (range 2-9%). We analysed the B17 incidence among HLA association of 205 HIV-1 patients on anti-retroviral treatment. Ethnically age and sex matched 200 normal individuals served as controls. The ARV treated patients were evaluated for their CD4 counts by flowcytometry, and viral load monitoring by Taqman real time PCR method. HLA typing was done using conventional microlymphocytotoxicity assay. The prevalence of HLA B17 was found to be 13.17% in 205 patients compared to 7.75% in controls (OR=1.805; P value 0.011) which indicates that this particular HLA B17 and its subtype HLA B57 has to be considered when the antiretroviral treatment cocktail contains abacavir though costly in resource limited countries like India.