

## Poster Sessions – Abstract P152

# Molecular epidemiology of HIV-1 strains in Antalya, Turkey

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**Introduction:** The aim of this study was to determine the subtype distribution of HIV-1 strains isolated from antiretroviral therapy (ART)-naive and on treatment patients in Antalya, the city of southern Turkey.

**Materials and Methods:** The study included 77 of 92 newly diagnosed HIV-1 positive patients of last two years (between February 2012 and June 2014). HIV-1 subtypes and circulating recombinant forms (CRFs) were identified by phylogenetic analysis of reverse-transcriptase (codon 41–238) and protease (codon 1–99) domains (~667 bp) of *pol* gene region in HIV-1 strains.

**Results:** Subtype B (48%, 37/77) was identified as the most common HIV-1 subtype in Antalya that similar the other Turkish patients. Non-B subtypes were followed as CRFs (39%, 30/77). Interestingly, CRF14\_BG (12.9%, 10/77) was found for the first time in Antalya in contrast to previous observations in the other reports in Turkey. Also, subtype G (6.5%, 5/77) was detected more often than HIV-1 subtypes in circulation of Turkey.

**Conclusions:** These findings may be associated with specific geographic localization of Antalya that touristic movements of city. Recognized HIV-1 subtype diversity is major challenges in the development of a globally effective HIV vaccine.

## References

1. Sayan M, Willke A, Ozgunes, Sargyn F. HIV-1 subtypes and primary antiretroviral resistance mutations in antiretroviral therapy naive HIV-1 infected individuals in Turkey. *Jpn J Infect Dis.* 2013;66:306–11.
2. Yilmaz G, Midilli K, Turkoglu S, Bayraktarolu Z, Kuşkucu AM, Ozkan E, et al. Genetic subtypes of human immunodeficiency virus type 1 (HIV-1) in Istanbul, Turkey. *Int J Infect Dis.* 2006;10:286–90.
3. Alpasar D, Agacfidan A, Lubke N, et al. Molecular epidemiology of HIV in a cohort of men having sex with men from Istanbul. *Med Microbiol Immunol.* 2013;202:251–5.
4. Hemelaar J. The origin and diversity of the HIV-1 pandemic. *Trends Mol Med.* 2012;18:182–92.