

Summary

Title: The impact of adenovirus 36 infection and other selected factors on the metabolic syndrome in people living with HIV

Owing to advances in antiretroviral therapy (ARV) in the last three decades, people living with HIV are privy to a life expectancy similar to that of their HIV-negative counterparts. Consequently, opportunistic diseases related to the acquired immune deficiency syndrome (AIDS) are losing their significance as causes of mortality in this population and are replaced with cardiovascular disease and non-AIDS-defining malignancies, similarly as in the general populations.

The aim of this doctoral dissertation was to determine the association of serological markers of past adenovirus 36 (Adv36) infection with the components of the metabolic syndrome and the levels of inflammatory markers associated with cardiovascular risk in people living with HIV on suppressive ARV therapy.

91 participants living with HIV were included in the study, 92,3% were male.

Anti-Adv36 antibodies were detected in 26,4% of the studied sample.

The presence of anti-Adv36 antibodies was associated with a smaller waist circumference and a smaller waist-to-hip ratio in the univariate analysis, but not in the multivariate analysis. The percentage of patients on lipid-lowering treatment was smaller in participants with detectable anti-Adv36 antibodies both in the univariate, as well as in the multivariate analysis. No significant differences were observed between Adv36-seropositive and Adv36-seronegative participants in regards to other measured components of the metabolic syndrome and in regards to the measured levels of inflammatory markers in the serum (high-sensitivity C-reactive protein, resistin, calprotectin).

In conclusion, the presence the anti-Adv36 antibodies is associated with a lower prevalence of dyslipidemia in people living with HIV, but Adv36 infection does not promote a pro-inflammatory state.

As an supplement to the discussion on cardiovascular risk in people living with HIV, a review of the literature on the topic of the impact of ARV therapy on the components of the metabolic syndrome was conducted.

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