

A cross-sectional study to assess the metabolic syndrome prevalence and cardiovascular disease risk factors in HIV-positive men

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Abstract

Background

We aimed to evaluate the risk factors associated with metabolic syndrome (MS) and cardiovascular diseases (CVDs) in HIV-positive young men to improve future HIV management and public health.

Methods

This was a cross-sectional study with a prospective collection of data from June 2014 to April 2016 and data were statistically analyzed using IBM SPSS Modeler V18.0.0.

Results

A total of 200 patients' data were collected with a mean age of 32.9 and patients were divided into two groups: group-1 contains 45 treatment-naive participants and group-2 includes 155 HAART treatment-experienced participants. MS prevalence between group-1 and group-2 were 18% and 31%, respectively. The Framingham Risk Score (FRS) for the naive and experienced groups were 4.7 ± 4.2 and 3.87 ± 5.92 , respectively. High triglyceride (TG >150 mg/dl) in group-1 and group-2 were 15.6% and 36.6% ($p < 0.05$), whereas, lower HDL (HDL < 39 mg/dl) in group-1 and group-2 presented as 76.7% versus 51% ($p < 0.05$), respectively. In group-2, treatment with protease inhibitors (PIs) resulted in higher triglyceride levels when compared with non-nucleotide reverse transcriptase inhibitors (NNRTIs) and integrase inhibitors (IIs).

Conclusions

The prevalence of MS in the treatment-naive group was lower than that of the treatment-experienced group; high TG level resulted in higher MS prevalence in the treatment-experienced group. In contrast, the cardiovascular risk of FRS in the naive group was higher than that of the experienced group, which may result from the low HDL level. In group-2, an increasing triglyceride level of PIs indicated higher CVDs risk when compared with NNRTIs and IIs.