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Changes in hematological parameters after switching treatment of HIV-infected patients from zidovudine to abacavir or tenofovir DF RF Viergever*1, MJ ten Berg¹, WW van Solinge¹, AIM Hoepelman¹ and EH Gisolf²

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Purpose of the study

Administration of zidovudine (AZT) to patients infected with the Human Immunodeficiency Virus (HIV) is associated with anemia and leukopenia. The presence of anemia is correlated with quality of life and mortality in HIV-infected patients. Our objective was to investigate the effect of switching from AZT to alternative antiretroviral therapy on hematological parameters in HIV-infected patients.

Methods

Retrospectively, patients were selected who switched from AZT to either abacavir (ABC) or tenofovir disoproxil fumarate (TDF) between 2003 and 2007. Hematological parameters were compared pre-switch and post-switch using a within subjects design.

Summary of results

Hemoglobin (Hb) levels and leukocyte counts showed significant mean increases after switch of 0.6 mmol/L and 0.7 10⁹ cells/L, respectively. The prevalence of anemia dropped from 40.5% to 15.2% and the prevalence of leukopenia from 19.5% to 11.7%. There were no differences between switching to ABC or TDF.

Conclusion

With this study we confirmed that switching antiretroviral medication from AZT to either ABC or TDF results in a significant increase in Hb and leukocyte count in HIV-infected patients.

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