Effectiveness of dual and triple antiretroviral therapy in the treatment of HIV-infected children

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ABSTRACT

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Objective: The use of antiretroviral therapy in HIV-infected children has been a widely discussed issue. The aim of this study was to compare the effectiveness of dual nucleoside analogue reverse transcriptase inhibitor (NRTI) regimens and three-drug regimens [2NRTI+ non-nucleoside reverse transcriptase inhibitor (NNRTI) or protease inhibitor (PI)] in a cohort of HIV-infected children.

Methods: The study was carried out in a referral center for the management of infected children, which is affiliated with the School of Medicine of Universidade Federal de Minas Gerais (UFMG). Those children whose antiretroviral therapy was implemented between January 1998 and December 2000 and who were followed until December 2001 were included in the study. Therapeutic failure or death was regarded as the endpoint in our analysis.

Results: A total of 101 patients were assessed, 58 (57.4%) on dual therapy and 43 (42.6%) on triple therapy. No statistically significant difference was observed between the groups in terms of gender, age, CD4+ count and baseline viral load. The average duration of dual therapy was 26.3 months (95%CI 21.3-31.3) and that of triple therapy was 34.3 months (95%CI 29.2-39.5%). There was therapeutic failure in 33 (56.9%) patients on dual therapy and in 11 (25.6%) patients on triple therapy (log rank = 5.03; p = 0.025). The relative risk of therapeutic failure of the dual therapy was 2.2 times higher (95%CI 1.3-3.9). The percentage of initial CD4+ T cells was a predictor of risk for therapeutic failure (p = 0.001). Patients on triple therapy showed a more remarkable reduction in their viral load (p = 0.001).

Conclusion: Triple therapy was efficient for a longer time period and showed better virologic response than dual therapy in this cohort of HIV-infected children. Therefore, triple therapy should be the treatment of choice.

(Key words: Acquired immunodeficiency syndrome, anti-HIV drugs, therapy).