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Poster Exhibition

Track B - Complications of Therapy

THPE0149 - Weight evolution in patients after stavudine substitution for lipoatrophy in Rwanda: comparison of zidovudine with tenofovir/abacavir

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Background: In patients manifesting lipoatrophy on stavudine-containing first-line antiretroviral treatment (ART) regimens in Rwanda, to a) assess weight evolution after stavudine substitution and b) verify if there was a significant difference in weight evolution if zidovudine or tenofovir (TDF)/abacavir (ABV) was used for substitution.

Methods: Médecins Sans Frontières has been supporting the antiretroviral treatment (ART) program in two urban government health centers in Rwanda. All patients on stavudine-containing first-line regimens for an uninterrupted duration of minimal 6 months and substituting stavudine for lipoatrophy (diagnosed using a Lipodystrophy-Case-Definition-Study-based questionnaire) were included (N=116). The most severe cases replaced stavudine with TDF or ABV (N=40), the remainder with zidovudine (N=76). The weight evolution at 3, 6, 9 and 12 months after stavudine-substitution was recorded. Multivariate linear regression was performed to identify factors associated with the change in weight after substitution.

Results: For those patients changed to zidovudine, a progressive weight loss was seen (mean loss by 12 months: 1.62 kg; P=0.001). In contrast, those on TDF/ABV displayed stable body weight, with a tendency towards recovery after an initial period of 3 months although this difference did not reach statistical significance. The between-group difference was significant from 6 months on (difference at 12 months: 2.7 kg, P=0.008). In multivariate analysis, substitution with TDF/ABV and pronounced weight loss prior to stavudine-change was significantly associated with weight gain.

Conclusions: This is the first study in Africa assessing "weight gain" as a proxy of recovery after substitution of stavudine for lipoatrophy. In this regard and although we do not know the metabolic implications of this finding, it might suggest that TDF/ABV is superior to zidovudine. The slow recovery of weight particularly with zidovudine highlights the need of alternatives for stavudine in first-line regimens, and the need of pro-active switching.

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