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Adverse neurological events due to Antiretroviral therapy in Mali

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Abstract

Introduction: Adverse neurological events during antiretroviral treatment (ART) are frequent and various[1-3]. Their diagnosis is difficult, especially if considering the geographical context of Africa.

Aim: To identify the frequency of ART-associated adverse events with neurological effects.

Methods: Prospective study of of all patients with antiretroviral treatment for development of neurological manifestations over a period of 12 months in an Infectious Diseases Unit of a teaching hospital ("Point G", Bamako, Mali). Neurological diagnostics confirmed by an experienced neurologist. All data were collected accordring to WHO recommendations (side effects classification) for complete characterization[4]. Analysis of data was perfomed with the Software SPSS version 12.0.

Results: 420 HIV seropositive patients (sex ratio M/F: 1.06; mean age: 41.2 [18-65] years) under ART treatment were followed. Most patients (91.9 %) were infected by HIV-1. 89.2% of patients were under fixed dose combination of Triomune® (D4T + 3TC + Nevirapine). There was no specific neurological pathology at the initiation of the treatment. During treatment, 37 patients showed adverse neurological events (8.08%). Polyneuritis alone represented 83.8%, and polyneuritis associated with vertigo, headache and depression represented 16.2 %. Five cases were at 3rd stage of WHO classification (13.5%), which justified stopping the administration of d4T.

Table I : Adverse neurological events

Adverse neurological events	Frequency	WHO grading toxicity score		
		Grade I	**Grade II**	**Grade III**
polyneuritis	**31** (83.8%)	16	9	**5**
headache	3	2	1	0
Polyneuritis+ vertigo	2	1	1	0
Depressant syndrome	1	1	0	0
Total	**37**	**20(54%)**	**11(29.5%)**	**5(13.5)**

Table II : Therapeutic schemes

Therapeutic scheme	**Frequency**	**Percentage**
D4T + 3TC + NVP	**33**	**89.2**
AZT + 3TC + EFV	2	5.4
AZT + 3TC + IDV	1	2.7
AZT + 3TC + DDI	1	2.7
Total	**37**	**100**

Conclusions

Adverse neurological events arise from the use of Triomune®, most likely due to D4T. In future antiretroviral therapy, neurological consequences must be taken into account and proactive pharmacovigilance must be undertaken to detect the potential of other drugs to cause similar neurological side effects.

Reference

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