

Poster presentation

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Effectiveness of a early initiation of protease inhibitor-sparing antiretroviral regimen in human immunodeficiency virus-1 vertically infected infants

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from Fourth Dominique Dormont International Conference. Host-Pathogen Interactions in Chronic Infections Paris, France. 13-15 December 2007

Published: 9 April 2008

Retrovirology 2008, **5**(Suppl 1):P24 doi:10.1186/1742-4690-5-S1-P24

This abstract is available from: <http://www.retrovirology.com/content/5/S1/P24>

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Background

Vertically HIV-1-infected infants are at high risk of severe manifestations of the disease in the first year of life [1]. For this reason, we have elected, since 1996, to treat all infants born to HIV-1-infected mothers with a combination of 3 reverse transcriptase inhibitors as soon as the diagnosis of vertical transmission is established.

Material and methods

This is a cohort study of the effectiveness and tolerance of therapy in the 17 HIV-1-infected infants followed from birth in 3 belgian paediatric reference centres since 1996. All of them had been treated according to these guidelines.

Results

Treatment was initiated in all patients before 66 days of life. All but one were asymptomatic at initiation of therapy. Median follow-up was 56 months (range: 26-103). Twelve out of the 17 patients (70.6%), including 11/13 (85%) infants treated with the combination of zidovudine, lamivudine and nevirapine, experienced a complete viral suppression (<50 copies/mL) with their first drug regimen. Lack of compliance was acknowledged by the parents of 3 of the 5 infants whose initial regimen failed. At last follow-up, 12 patients were asymptomatic, two

were CDC stage A and three were stage B; 15 had HIV-1 RNA levels of < 50 copies/mL and 14 had ≥25% CD4 lymphocytes. Among them 11 were still treated with their first line regimen (Figure 1). One child experienced a transient severe side effect, another child had clinical lipodystrophy and 4 developed hypercholesterolemia.

Conclusions

Early initiation of treatment with 3 reverse transcriptase inhibitors appeared to be highly effective in this cohort of vertically HIV-1 infected infants. Parental adherence is crucial to the effectiveness of therapy.

TABLE 1. Initial and Current Antiretroviral Regimen and Long-Term Outcome of the 17 Children Included in the Study

ID	Age at Diagnosis (d)	Age at Initiation of Therapy (d)	First Antiretroviral Regimen	Lowest VL with Initial ART	Age (y) at Last FU	VL at Last FU	CDC Classification	CD4 (%) at Last FU	ART at Last FU
1	35	60	ZDV-3TC-ddI	24,000		<50	N	33	Lop/rito-TDF-ABC
2	29	51	ZDV-3TC-ddI	<50	8	<50	N	30	Unchanged
3	2	29	ZDV-3TC-NVP	<50	7	<50	B	46	Unchanged
4	2	23	ZDV-3TC-NVP	<50	6.5	<50	N	41	Unchanged
5	35	61	ZDV-3TC-NVP	<50	5.5	<50	N	35	Unchanged
6	1	15	ZDV-3TC-NVP	619	v.5	<50	N	27	ZDV-ABC-NVP
7	46	62	d4T-ddI-NVP	413	5	<50	N	37	ZDV-3TC-ABC
8	1	33	ZDV-3TC-NVP	<50	5	<50	A	24	Unchanged
9	12	37	ZDV-3TC-NVP	<50	4.5	<50	B	26	ZDV-NVP-NFV
10	2	66	d4T-ddI-NVP	2160	4.5	378	B	22	d4T-ddI-ABC
11	5	7	ZDV-3TC-NVP	<50	4.5	<50	A	36	Unchanged
12	6	13	ZDV-3TC-NVP	<50	3	<50	N	16	Unchanged
13	35	55	ZDV-3TC-NVP	<50	3	<50	N	34	Unchanged
14	24	30	ZDV-3TC-NVP	<50	3	<50	N	46	Unchanged
15	1	8	ZDV-3TC-NVP	110	3	37000	N	28	ZDV-3TC-ABC
16	1	48	ZDV-3TC-NVP	<50	2	<50	N	34	Unchanged
17	1	10	ZDV-3TC-NVP	<50	2	<50	N	49	Unchanged

ID, patient identification number; VL, viral load; ART, antiretroviral therapy; FU, follow-up.

Figure 1

Acknowledgements

The authors would like to thank the patients and their families for their collaboration. This study was funded by the Smiles Foundation, Belgium and Dr Van der Linden received a grant from the European AIDS Clinical Society.

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