SWITCH-EE Study :
A Randomized Cross-over Study to Compare Etravirine and Efavirenz treatment

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SWISS HIV COHORT STUDY

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Background

Efavirenz (EFV) causes neuropsychiatric side effects and sleep disturbance and may be associated with an unfavourable blood lipid profile. In this study we investigated the effect of replacing EFV with etravirine (ETR) on patient preference, sleep quality, daytime sleepiness, anxiety, and blood lipid levels in patients who were tolerating EFV

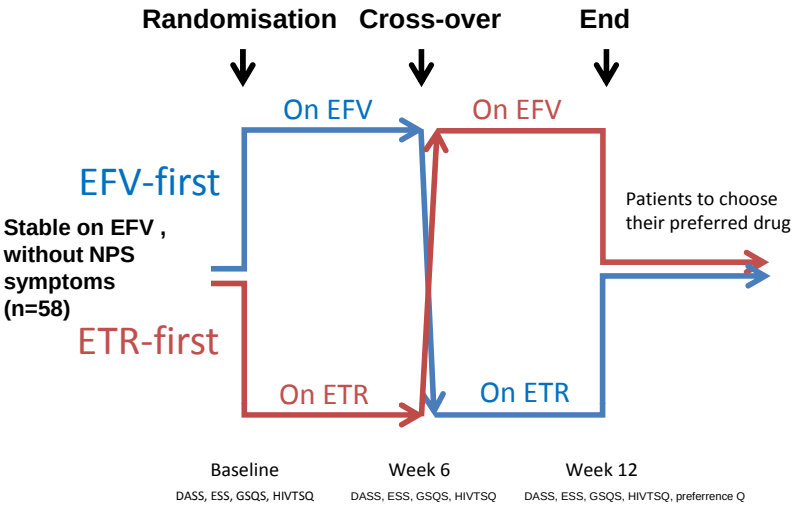
Methods

SWITCH-EE was a twelve weeks, randomized, double blind cross-over study. Study subjects had been on EFV for at least 3 months, and had undetectable (< 50 copies/µL) HIV-RNA with no neuropsychiatric (NPS) side effects.
They were randomized into two groups:

EFV-first group continued EFV (600mg once daily, plus ETR placebo), then switched to ETR (plus EFV placebo)

ETR-first group started ETR (400mg once daily plus EFV placebo) for 6 weeks, then switched to EFV (plus ETR placebo).

The NRTI backbone was continued unchanged troughout the study.



The primary endpoint of the trial was patient preference for the first or the second regimen, assessed after 12 weeks. Inter and intra-subject variability between the 2 treatments phases were analyzed.

Results

58 subjects (87% male) were included in the study. Age was 48 years (all values are medians), with duration of known HIV infection of 11 years and CD4 cell count of 589/ µL. Patients had been on EFV for 6.2 years. 55 subjects completed the study.

	Group of randomization	
	EFV-first N=28	ETR-first N=27
Patient's preference :		
Prefer EFV	15	1
Prefer ETR	6	16
No preference	7	10
Drug prescribed after trial :		
EFV	23	12
ETR	5	15

When asked about treatment preference after 12 weeks, 16 preferred EFV, and 22 preferred ETR, while 17 did not express a preference (p = NS).
Patients who started with EFV were more likely to prefer EFV (15/21, 71%), whereas patients who started with ETR were more likely to prefer ETR (n=16/17, 94%). This order effect was strongly significant (p<0.0001).

Quality of sleep, depression, anxiety and stress scores did not differ significantly between groups at any time points (p > 0.2 for all comparisons). Almost all not report any neuropsychiatric dissatisfaction.

Overall there were no clinically relevant, or statistically significant differences between the 2 treatment arms with regard to safety, tolerability and HIV-RNA from baseline.

Median total plasma cholesterol levels declined by 0.7 mmol (29 mg / 100 ml) after replacing efavirenz with etravirine (p < 0.002).

Conclusion

After double-blind substitution of EFV by ETR both once daily **in patients stable on EFV, without NPS symptoms at baseline**, patients expressed the same preference for any of the drug at week 12, in addition the measurable effect on neuropsychiatric symptoms and sleep quality was similar. Plasma cholesterol decreased significantly after ETR switch by 0.7 mmol (approximately 15%).

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