IMPROVEMENT IN THE LIPID PROFILE OF HIV-INFECTED PATIENTS AFTER SWITCHING TO RILPIVIRINE/EMTRICITABINE/TENOFOVIR

DI-082

S. Ortonobes Roig[1], M. de Antonio Cuscó[1], N. Carballo Martínez[1], E. Gonzalez Colominas[1], R. García Paricio[1], H. Knobel[2], S. Luque[1]

[1]Hospital del Mar, Parc de Salut Mar, Pharmacy department, Barcelona, Spain.
[2]Hospital del Mar, Parc de Salut Mar, Infection disease department, Barcelona, Spain.

BACKGROUND

Dyslipidemia has been associated with antiretroviral therapy (ART). Rilpivirine, a second-generation non-nucleoside reverse transcriptase inhibitor (NNRTI), has a more favorable lipid profile.

PURPOSE

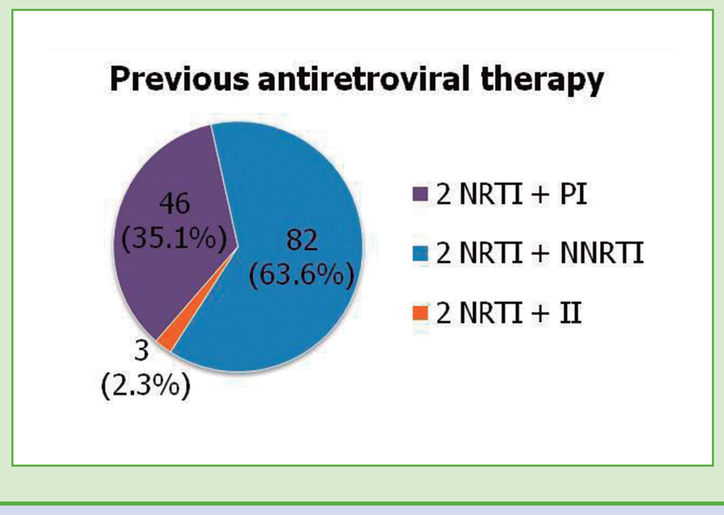
To study the changes in the lipid profile of HIV-infected patients after switching from any ART to rilpivirine/emtricitabine/tenofovir and to assess the efficacy of the switch.

MATERIALS AND METHODS

Observational study including all patients switching to rilpivirine/emtricitabine/tenofovir from April 2013 to April 2014 in our cohort of 1550 HIV-infected patients. Data collected: demographics, previous ART, CD4+count, HIV viral load and lipid parameters at baseline (at the time of the switch) and six months after it. All patients were classified in two groups as normal or altered baseline lipid profile according to the National Cholesterol Education Program[1] cutoffs. Differences between baseline and final values of the lipid parameters were compared between both groups. Quantitative data are expressed as median (Q1/Q3).

RESULTS

During the study period 131 patients switched to rilpivirine/emtricitabine/tenofovir from any ART: 109 (83.2%) male; age: 43.7 (37.6/50.2) years.



NRTI: nucleoside reverse transcriptase inhibitor,
NNRTI: non-nucleoside reverse transcriptase inhibitor,
PI: protease inhibitor, II: integrase inhibitor

Data about clinical efficacy of the switch (Figure 1 and Figure 2).

Figure 1. Median CD4+ count comparing baseline vs six months after the switch: 619 (437/811) vs 653 (489/830) cell/mcL (p=0.067)

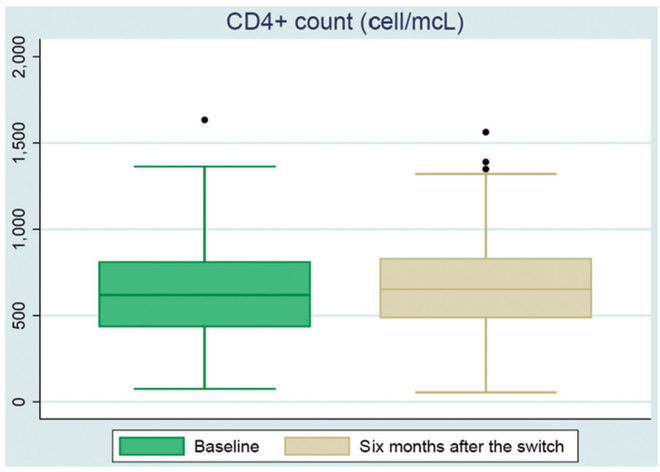


Figure 2. Percentage of total patients with HIV-RNA<50 copies/mL at baseline and six months after the switch.

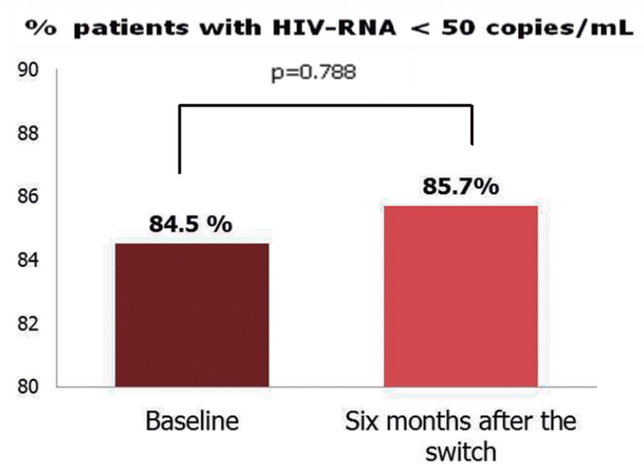


Table 1. Absolute differences of the lipid parameters between baseline and six months after the switch in the 2 groups (normal and altered baseline lipid profile)

	Normal lipid profile		Altered lipid profile		p
	n	Absolute difference	n	Absolute difference	
Total cholesterol (TC) (mg/dL)	77	-15 (-31/-1)	30	-32.5 (-46/-22)	**<0.001**
Low-density lipoprotein cholesterol (mg/dL)	65	-5 (-19/5)	23	-24 (-32/-13)	**<0.001**
High-density lipoprotein cholesterol (HDL-c) (mg/dL)	70	-3.5 (-13/1)	19	-1 (-5/4)	**0.01**
Triglycerides (mg/dL)	75	-10 (-25/16)	31	-82 (-137/-58)	**<0.001**
TC/HLD-c	77	0.005 (-0.472/0.342)	11	-0.545 (-1.06/0.128)	0.102

Table 2. Relative differences of the lipid parameters between baseline and six months after the switch in the 2 groups (normal and altered baseline lipid profile)

	Normal lipid profile		Altered lipid profile		p
	n	Relative difference (%)	n	Relative difference (%)	
Total cholesterol (TC) (mg/dL)	77	-9.0 (-16.6/-0.6)	30	-13.7 (-21.2/-9.2)	**0.028**
Low-density lipoprotein cholesterol (mg/dL)	65	-5.5 (-16.9/6.9)	23	-13.1 (-22.3/-9.9)	**0.004**
High-density lipoprotein cholesterol (HDL-c) (mg/dL)	70	-8.3 (-19.4/1.9)	19	-2.5 (-13.5/11.8)	**0.061**
Triglycerides (mg/dL)	75	-11.5 (-28.2/19.5)	31	-49.2 (-63.0/-27.8)	**<0.001**
TC/HLD-c	77	0.2 (-14.0/11.9)	11	-10.1 (-16.6/1.7)	0.163

CONCLUSIONS

- Rilpivirine/emtricitabine/tenofovir improved lipid profile of HIV-infected patients, while maintaining the immunological and virological efficacy of the ART.
- The absolute and relative reduction of all lipid parameters six months after the switch was significantly higher in patients with altered lipid profile at baseline.

[1]NCEP (National Cholesterol Education Program) cutoffs: triglycerides <150 mg/dL; LDL <130 mg/dL; total cholesterol <200 mg/dL; HDL >40 mg/dL.

REFERENCES

- Tebas P, Sension M, Arribas J, Duiculescu D, Florence E, Hung CC, et al. Lipid levels and changes in body fat distribution in treatment-naive, HIV-1-Infected adults treated with rilpivirine or Efavirenz for 96 weeks in the ECHO and THRIVE trials. Clinical infectious diseases, 2014 Aug;59(3):425-34.

Hospital del Mar
Parc de Salut MAR Barcelona