



POSTER PRESENTATION

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# Effects on insulin sensitivity and hepatic safety of Atazanavir in HCV/HIV coinfecting patients versus HIV monoinfected: A prospective 48-week study

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## Background

Protease inhibitors based antiretroviral therapy has been associated with elevated plasma insulin levels and insulin resistance. HCV infections are an independent risk factor for diabetes development. *In vitro* Atazanavir (ATV) has shown minimal inhibitory effect on the insulin-regulated glucose transporter GLUT4. Studies in healthy HIV-negative demonstrated a favorable metabolic profile. Clinical studies in HIV and HCV/HIV coinfecting pretreated patients with underlying real conditions are needed.

## Methods

51 pretreated HIV-1 infected patients who started ATV/r were included prospectively. Insulin resistance was assessed by HOMA (Homeostasis Model Assessment). Hepatotoxicity was defined according to AIDS Clinical Trials Group

criteria to ALT values. Clinical data and laboratory parameters were analyzed at baseline and every 12 weeks up to 48. It includes body mass index (BMI), fasting glucose, insulin, triglycerides (TG), total cholesterol (TC), low-density lipoprotein-cholesterol (LDL-c), CD4+ cell count and HIV-1 RNA. HIV monoinfected and HIV/HCV co-infected (pos HCV-RNA) patients were compared.

## Results

23 HIV-mono and 28 HIV-HCV coinfecting patients were analyzed. Mean age was 40 ± 8 years, male 74%; median CD4 count (IQR) 288 (224-548) cells/μL. 53% plasma HIV-RNA < 50 copies/mL. Only 1 case of severe hepatotoxicity (Grade 4) was seen (coinfecting patient). Metabolic profile is shown in Table 1. ATV was discontinued in 4 cases (2 poor adherence and 2 gastrointestinal intoler-

**Table 1**

	HCV	BASAL	48-WEEK	$\Delta_{w48-w0}$	P( $\Delta_{w48-w0}$ )
BMI (Kg/m <sup>2</sup> )	-	24.5 (22-27)	26 (23-29)	0.34 (-1.0+0.9)	>.05
	+	22 (20-26)	20 (18-23)	-0.35 (-0.8+1.2)	>.05
Fasting glucose (mg/dl)	-	87 (83-97)	88 (85-95)	-0.5 (-5.7+8)	>.05
	+	94 (83-103)	90 (80-105)	+2 (-24+12)	>.05
HOMA	-	1 (0.8-3.6)	1.4 (0.9-3.2)	-0.06 (-1.5+0.8)	>.05
	+	3.5 (1.8-6.3)	4.5 (3-7.5)	+1.8 (-4.6+3.1)	>.05
TC (mg/dl)	-	197 (165-215)	179 (161-200)	-18 (-40- -3)	.02
	+	157 (132-174)	144 (127-165)	-5 (-32+15)	>.05
TG (mg/dl)	-	149 (122-241)	126 (101-208)	-10 (-92+17)	>.05
	+	139 (99-186)	114 (89-197)	0 (-19+59)	>.05

As Median (Interquartile range). In all comparisons between HCV- vs HCV+ p > .05

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ance). Non virological or immunological failures were documented.

### Discussion

ATV/r can be safely used in patients with chronic viral hepatitis. ATV/r regimens do not induce insulin resistance and has a good lipid profile in coinfecteds as in monoinfected patients. These results would be better with unboosted ATV regimens.

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