

Table e-1. Multivariable analyses of the associations between baseline hypertension, hypertriglyceridemia status, hypercholesterolemia, overweight and cognitive performances, ANRS CO3 Aquitaine cohort, 2007-2009 (Linear regression adjusted for gender, sex, education, HIV transmission groups, AIDS stage, CES-D score)

	Hypertension*			Hypertriglyceridemia†		
	No	Yes	P value	No	Yes	P value
	N=317	N=78		N=196	N=201	
<b>COGNITIVE TESTS</b>	<b>Mean(SE)</b>	<b>Mean(SE)</b>		<b>Mean(SE)</b>	<b>Mean(SE)</b>	
TMT part A	1.72 (0.038)	1.66 (0.08)	0.53	1.72(0.05)	1.69(0.05)	0.70
TMT part B	4.72 (0.24)	4.64(0.50)	0.88	4.76(0.31)	4.67(0.31)	0.83
DSST score	44.9 (0.61)	44.1(1.3)	0.54	45.8(0.79)	43.9(0.78)	0.09
FCSRT - immediate recall score	31.0 (0.35)	31.0(0.74)	0.99	31.3(0.46)	30.7(0.45)	0.38
FCSRT - delayed recall score	12.3 (0.13)	12.4(0.27)	0.76	12.4(0.17)	12.3(0.16)	0.56
IST score 30 seconds	47.6 (0.52)	46.5 (1.1)	0.39	47.1(0.67)	47.6(0.66)	0.64
ROCT – Copy score	32.4 (0.25)	32.4 (0.51)	0.96	32.9(0.31)	31.9(0.31)	0.04
ROCT – Recall score	17.7 (0.33)	17.7 (0.68)	0.94	17.3(0.43)	18.2(0.42)	0.14
Digit span score	4.1 (0.07)	4.1 (0.14)	0.79	4.1(0.09)	4.1(0.09)	0.95
PPT score	175.8 (1.5)	174.5 (3.2)	0.72	175.9(1.9)	175.1(1.9)	0.77

Abbreviations: TMT (Trail Making Test), DSST (Digit Symbol Substitution Test), FCFS (Free and Cued selective reminding test), IST (Isaac Set Test), ROCT (Rey-Osterrieth Complex Figure), Purdue Pegboard Test (PPT);

\* Hypertension was characterized by systolic blood pressure (SBP)  $\geq 140$  mmHg, or diastolic blood pressure  $\geq 90$  mmHg, or antihypertensive drug intake

† Hypertriglyceridemia was defined by triglycerides plasma level  $> 2.2$  mmol/l at two consecutive measures.

Table e-1 (continued). Multivariable analyses of the associations between baseline hypertension, hypertriglyceridemia status, hypercholesterolemia, overweight and cognitive performances, ANRS CO3 Aquitaine cohort, 2007-2009 (Linear regression adjusted for gender, sex, education, HIV transmission groups, AIDS stage, CES-D score)

	Hypercholesterolemia*			Overweight†		
	No	Yes		No	Yes	
	224	173		288	112	
<b>COGNITIVE TESTS</b>	<b>Mean(SE)</b>	<b>Mean (SE)</b>	<b>P value</b>	<b>Mean(SE)</b>	<b>Mean(SE)</b>	<b>P value</b>
TMT part A	1.71 (0.05)	1.71(0.05)	0.98	1.66 (0.42)	1.74 (0.07)	0.19
TMT part B	4.75 (0.29)	4.68 (0.34)	0.87	4.51 (0.26)	5.14 (0.42)	0.21
DSST score	45.4 (0.75)	44.0 (0.86)	0.24	45.2 (0.67)	43.3 (1.08)	0.14
FCSRT - immediate recall score	31.0 (0.43)	30.9 (0.49)	0.82	31.1 (0.38)	30.6 (0.62)	0.48
FCSRT - delayed recall score	12.3 (0.16)	12.4 (0.18)	0.92	13.1 (0.15)	13.0 (0.26)	0.69
IST score 30 seconds	47.4 (0.63)	47.3 (0.72)	0.93	47.5 (0.56)	46.2 (0.92)	0.19
ROCT – Copy score	32.8 (0.29)	31.9 (0.34)	0.07	32.8 (0.26)	31.8 (0.43)	0.06
ROCT – Recall score	17.7 (0.40)	17.9 (0.46)	0.71	18.0 (0.36)	17.5 (0.58)	0.51
Digit span score	4.1 (0.09)	4.1 (0.09)	0.95	4.2 (0.07)	4.0 (0.12)	0.11
PPT score	176 (1.9)	175 (1.9)	0.77	175 (1.6)	176 (2.6)	0.84

Abbreviations: TMT (Trail Making Test), DSST (Digit Symbol Substitution Test), FCFS (Free and Cued selective reminding test), IST (Isaac Set Test), ROCT (Rey-Osterrieth Complex Figure), Purdue Pegboard Test (PPT); SE (Standard error)

\* High cholesterol was defined by plasma cholesterol >6.24 mmol/l on ≥2 consecutive measures or any use of lipid-lowering drugs;

† Body mass index (BMI) was computed as the ratio of weight (kg) to the square of height ( $m^2$ ), and overweight was defined as  $BMI \geq 25$

Table e-2. Multivariable analysis of the association between glycaemia status at baseline and neurocognitive impairment (NCI) severity at baseline

	Glycaemia status at baseline		
	Normal N=328	Impaired glycaemia N=33	Diabetes N=39
	OR* (95% CI)	OR (95% CI)	OR (95% CI)
<b>NCI severity at baseline<sup>†</sup></b>			
Normal (N=166)	-	-	-
ANI (N=83)	1	1.9 (0.6-5.7)	1.5 (0.6-3.9)
MND (N=124)	1	3.4 (1.3-9.1)	1.1 (0.4-2.9)
HAD (N=27)	1	1.6 (0.2-15.5)	6.5 (1.9-21.7)

\* Polytomous regression adjusted for gender, sex, education, HIV transmission groups, AIDS stage, CES-D score and cardiovascular risk factors

<sup>†</sup> Defined according to Antinori classification; ANI (Asymptomatic cognitive impairment), MND (Mild cognitive impairment), HAD (HIV associated dementia)

Table e-3. Multivariable analysis of the association between glycaemia status at baseline and neurocognitive impairment severity at two year follow-up

	Glycaemia status at baseline		
	Normal (N=232)	Impaired glycaemia (N=23)	Diabetes (N=26)
	OR * (95% CI)	OR (95% CI)	OR (95% CI)
<b>NCI severity at 2-year follow up †</b>			
Normal (N=117)	1	1	1
ANI (N=67)	1	0.6 (0.6-5.7)	2.4 (0.7-7.8)
MND (N=87)	1	0.7 (0.2-2.2)	2.1 (0.6-7.0)
HAD (N=10)	1	-	9.4 (1.2-76.0)

\* Polytomous regression adjusted for gender, sex, education, HIV transmission groups, AIDS stage, CES-D score and cardiovascular risk factors

† Defined according to Antinori classification: ANI (Asymptomatic cognitive impairment) , MND (Mild cognitive impairment), HAD (HIV associated dementia)