

**On-line Table 1: Differences in NAA/Cr ratios among 3 observed groups and correlations with CPE scores and current CD4+ counts**

ANOVA NAA/Cr	No.	Mean	SD	F	P	Correlation with CPE <sup>a</sup> and CD4 Counts <sup>b</sup> $\rho$ (P)
FSWM (right)						
cART	31	1.683	0.362	14.956	<.001 <sup>c</sup>	-0.208 (.26) <sup>a</sup>
Naïve chr. HIV	19	1.670	0.325			-0.033 (.83) <sup>b</sup>
Control	41	2.041	0.269			
Ventral ACG (right)						
cART	31	1.347	0.221	12.434	<.001 <sup>c</sup>	0.064 (.73) <sup>a</sup>
Naïve chr. HIV	19	1.420	0.305			-0.230 (.11) <sup>b</sup>
Control	41	1.604	0.178			
Ventral ACG (left)						
cART	31	2.163	0.350	7.481	.001 <sup>c</sup>	-0.156 (.40) <sup>a</sup>
Naïve chr. HIV	19	2.127	0.335			0.002 (.99) <sup>b</sup>
Control	41	2.420	0.320			
FSWM (left)						
cART	31	1.597	0.183	10.616	<.001 <sup>c</sup>	-0.009 (.96) <sup>a</sup>
Naïve chr. HIV	19	1.530	0.181			0.013 (.93) <sup>b</sup>
Control	41	1.749	0.197			
FDWM (right)						
cART	31	2.441	0.462	10.786	<.001 <sup>c</sup>	0.084 (.65) <sup>a</sup>
Naïve chr. HIV	19	2.249	0.404			0.345 (.016) <sup>b,c</sup>
Control	41	2.726	0.324			
Dorsal ACG (right)						
cART	31	1.956	0.283	5.496	.006 <sup>c</sup>	0.181 (.33) <sup>a</sup>
Naïve chr. HIV	19	1.846	0.273			0.137 (.35) <sup>b</sup>
Control	41	2.082	0.247			
Dorsal ACG (left)						
cART	31	1.551	0.300	14.308	<.001 <sup>c</sup>	-0.086 (.64) <sup>a</sup>
Naïve chr. HIV	19	1.592	0.543			-0.045 (.76) <sup>b</sup>
Control	41	1.995	0.347			
FDWM (left)						
cART	31	1.338	0.217	10.775	<.001 <sup>c</sup>	-0.056 (.76) <sup>a</sup>
Naïve chr. HIV	19	1.387	0.284			-0.200 (.17) <sup>b</sup>
Control	41	1.582	0.218			
PSWM (right)						
cART	31	1.975	0.349	6.937	.002 <sup>c</sup>	-0.194 (.30) <sup>a</sup>
Naïve chr. HIV	19	1.984	0.360			-0.094 (.53) <sup>b</sup>
Control	41	2.260	0.367			
PCG (right)						
cART	31	1.540	0.158	14.208	<.001 <sup>c</sup>	-0.138 (.46) <sup>a</sup>
Naïve chr. HIV	19	1.479	0.157			0.100 (.50) <sup>b</sup>
Control	41	1.742	0.250			
PCG (left)						
cART	31	2.089	0.394	12.535	<.001 <sup>c</sup>	0.023 (.90) <sup>a</sup>
Naïve chr. HIV	19	2.052	0.427			-0.044 (.76) <sup>b</sup>
Control	41	2.507	0.414			
PSWM (left)						
cART	31	1.942	0.226	8.063	.001 <sup>c</sup>	-0.030 (.87) <sup>a</sup>
Naïve chr. HIV	19	1.705	0.219			0.411 (.004) <sup>b,c</sup>
Control	41	1.998	0.308			

**Note:**—chr. indicates chronic.

<sup>a</sup> CPE score.

<sup>b</sup> CD4+ count.

<sup>c</sup> Significant.

**On-line Table 2: Post hoc analysis using the Tukey honest significant difference test among 3 groups of patients, according to voxel localizations<sup>a</sup>**

Tukey Test	HIV+ on Therapy vs HIV+ Therapy-Naïve	HIV+ Therapy-Naïve vs Controls	HIV+ on Therapy vs Controls
FSWM (right)			
NAA/Cr	.99	<.001 <sup>b</sup>	<.001 <sup>b</sup>
Cho/Cr	.93	.084	.31
mIns/Cr	.96	.16	.17
Ventral ACG (right)			
NAA/Cr	.50	<.001 <sup>b</sup>	.011 <sup>b</sup>
Cho/Cr	.10	.79	.25
mIns/Cr	.53	.002 <sup>b</sup>	.14
Ventral ACG (left)			
NAA/Cr	.93	.005 <sup>b</sup>	.006 <sup>b</sup>
Cho/Cr	.99	.55	.54
mIns/Cr	.24	.83	.076
FSWM (left)			
NAA/Cr	.44	.003 <sup>b</sup>	<.001 <sup>b</sup>
Cho/Cr	.72	<.001 <sup>b</sup>	.032 <sup>b</sup>
mIns/Cr	.47	.98	.34
FDWM (right)			
NAA/Cr	.22	.008 <sup>b</sup>	<.001 <sup>b</sup>
Cho/Cr	.57	.19	.89
mIns/Cr	.96	.97	.89
Dorsal ACG (right)			
NAA/Cr	.33	.023 <sup>b</sup>	.005 <sup>b</sup>
Cho/Cr	.50	.033 <sup>b</sup>	.58
mIns/Cr	.86	.74	.99
Dorsal ACG (left)			
NAA/Cr	.93	<.001 <sup>b</sup>	.001 <sup>b</sup>
Cho/Cr	.78	.23	.09
mIns/Cr	.07	<.001 <sup>b</sup>	.012 <sup>b</sup>
FDWM (left)			
NAA/Cr	.75	<.001 <sup>b</sup>	.009 <sup>b</sup>
Cho/Cr	.35	.68	.08
mIns/Cr	.34	.001 <sup>b</sup>	.24
PSWM (right)			
NAA/Cr	.99	.004 <sup>b</sup>	.018 <sup>b</sup>
Cho/Cr	.99	.70	.84
mIns/Cr	.99	.06	.10
PCG (right)			
NAA/Cr	.56	<.001 <sup>b</sup>	<.001 <sup>b</sup>
Cho/Cr	.13	<.001 <sup>b</sup>	.80
mIns/Cr	.75	.99	.78
PCG (left)			
NAA/Cr	.95	<.001 <sup>b</sup>	<.001 <sup>b</sup>
Cho/Cr	.63	.023 <sup>b</sup>	.38
mIns/Cr	.51	.96	.34
PSWM (left)			
NAA/Cr	.65	.008 <sup>b</sup>	<.001 <sup>b</sup>
Cho/Cr	.92	.021 <sup>b</sup>	.020 <sup>b</sup>
mIns/Cr	.66	.99	.59

<sup>a</sup> Data are *P* values.

<sup>b</sup> Significant.

**On-line Table 3: Differences in Cho/Cr ratios among 3 observed groups and correlations with CPE score and current CD4+ count**

ANOVA Cho/Cr	No.	Mean	SD	F	P	Correlation with CPE <sup>a</sup> and CD4 Counts <sup>b</sup> $\rho$ (P)
FSWM (right)						
cART	31	1.078	0.249	2.588	.08	0.037 (.84) <sup>a</sup>
Naïve chr. HIV	19	1.055	0.212			0.034 (.82) <sup>b</sup>
Control	41	0.971	0.170			
Ventral ACG (right)						
cART	31	1.103	0.152	2.204	.12	0.494 (.005) <sup>a,c</sup>
Naïve chr. HIV	19	1.191	0.198			-0.298 (.040) <sup>b,c</sup>
Control	41	1.126	0.107			
Ventral ACG (left)						
cART	31	1.031	0.142	0.812	.45	-0.084 (.65) <sup>a</sup>
Naïve chr. HIV	19	1.039	0.181			0.071 (.63) <sup>b</sup>
Control	41	0.984	0.215			
FSWM (left)						
cART	31	1.032	0.115	8.466	<.001 <sup>c</sup>	0.209 (.26) <sup>a</sup>
Naïve chr. HIV	19	1.061	0.134			-0.163 (.27) <sup>b</sup>
Control	41	1.152	0.135			
FDWM (right)						
cART	31	0.876	0.173	1.569	.21	0.230 (.21) <sup>a</sup>
Naïve chr. HIV	19	0.824	0.156			0.126 (.39) <sup>b</sup>
Control	41	0.802	0.186			
Dorsal ACG (right)						
cART	31	0.789	0.143	3.247	.044 <sup>c</sup>	0.557 (.001) <sup>a,c</sup>
Naïve chr. HIV	19	0.828	0.110			-0.155 (.29) <sup>b</sup>
Control	41	0.862	0.104			
Dorsal ACG (left)						
cART	31	1.039	0.137	2.683	.07	0.259 (.16) <sup>a</sup>
Naïve chr. HIV	19	1.075	0.229			-0.095 (.52) <sup>b</sup>
Control	41	0.965	0.198			
FDWM (left)						
cART	31	1.138	0.183	2.395	.10	0.386 (.032) <sup>a,c</sup>
Naïve chr. HIV	19	1.202	0.195			-0.201 (.17) <sup>b</sup>
Control	41	1.106	0.113			
PSWM (right)						
cART	31	1.059	0.132	0.365	.69	-0.176 (.34) <sup>a</sup>
Naïve chr. HIV	19	1.053	0.201			0.091 (.54) <sup>b</sup>
Control	41	1.025	0.193			
PCG (right)						
cART	31	1.015	0.121	9.568	<.001 <sup>c</sup>	0.202 (.28) <sup>a</sup>
Naïve chr. HIV	19	1.085	0.140			-0.240 (.10) <sup>b</sup>
Control	41	1.143	0.117			
PCG (left)						
cART	31	0.843	0.243	3.694	.029 <sup>c</sup>	0.129 (.49) <sup>a</sup>
Naïve chr. HIV	19	0.899	0.212			-0.194 (.19) <sup>b</sup>
Control	41	0.978	0.185			
PSWM (left)						
cART	31	0.808	0.147	5.441	.006 <sup>c</sup>	0.255 (.167) <sup>a</sup>
Naïve chr. HIV	19	0.795	0.113			0.111 (.45) <sup>b</sup>
Control	41	0.886	0.099			

**Note:**—chr. indicates chronic.<sup>a</sup> CPE score.<sup>b</sup> CD4+ count.<sup>c</sup> Significant.

**On-line Table 4: Differences in mlns/Cr ratios among 3 observed groups and correlations with CPE score and current CD4+ count**

ANOVA mlns/Cr	No.	Mean	SD	F	P	Correlation with CPE <sup>a</sup> and CD4 Counts <sup>b</sup> $\rho$ (P)
FSWM (right)						
cART	31	0.489	0.159	2.448	.10	-0.019 (.92) <sup>a</sup>
Naïve chr. HIV	19	0.499	0.166			-0.010 (.94) <sup>b</sup>
Control	41	0.424	0.129			
Ventral ACG (right)						
cART	31	0.685	0.214	6.426	.002 <sup>c</sup>	0.150 (.42) <sup>a</sup>
Naïve chr. HIV	19	0.630	0.197			0.184 (.21) <sup>b</sup>
Control	41	0.538	0.125			
Ventral ACG (left)						
cART	31	0.466	0.164	2.462	.09	-0.191 (.29) <sup>a</sup>
Naïve chr. HIV	19	0.532	0.153			-0.254 (.08) <sup>b</sup>
Control	41	0.446	0.113			
FSWM (left)						
cART	31	0.586	0.150	1.052	.35	0.096 (.61) <sup>a</sup>
Naïve chr. HIV	19	0.636	0.157			-0.219 (.13) <sup>b</sup>
Control	41	0.579	0.141			
FDWM (right)						
cART	31	0.391	0.139	0.110	.90	-0.079 (.67) <sup>a</sup>
Naïve chr. HIV	19	0.402	0.206			-0.069 (.64) <sup>b</sup>
Control	41	0.383	0.127			
Dorsal ACG (right)						
cART	31	0.382	0.125	0.288	.75	0.046 (.89) <sup>a</sup>
Naïve chr. HIV	19	0.399	0.103			-0.098 (.51) <sup>b</sup>
Control	41	0.402	0.115			
Dorsal ACG (left)						
cART	31	0.780	0.210	1.933	<.001 <sup>c</sup>	-0.024 (.89) <sup>a</sup>
Naïve chr. HIV	19	0.658	0.185			0.317 (.028) <sup>b,c</sup>
Control	41	0.506	0.168			
FDWM (left)						
cART	31	0.691	0.199	6.549	.002 <sup>c</sup>	0.187 (.31) <sup>a</sup>
Naïve chr. HIV	19	0.617	0.207			0.144 (.33) <sup>b</sup>
Control	41	0.537	0.147			
PSWM (right)						
cART	31	0.726	0.178	3.503	.034 <sup>c</sup>	0.097 (.60) <sup>a</sup>
Naïve chr. HIV	19	0.732	0.206			-0.013 (.93) <sup>b</sup>
Control	41	0.627	0.170			
PCG (right)						
cART	31	0.602	0.121	0.298	.74	0.230 (.21) <sup>a</sup>
Naïve chr. HIV	19	0.632	0.119			-0.201 (.17) <sup>b</sup>
Control	41	0.605	0.167			
PCG (left)						
cART	31	0.471	0.184	1.037	.36	-0.187 (.31) <sup>a</sup>
Naïve chr. HIV	19	0.528	0.216			-0.135 (.36) <sup>b</sup>
Control	41	0.459	0.149			
PSWM (left)						
cART	31	0.402	0.109	0.529	.59	0.19 (.31) <sup>a</sup>
Naïve chr. HIV	19	0.430	0.108			-0.156 (.29) <sup>b</sup>
Control	41	0.400	0.114			

**Note:**—chr. indicates chronic.

<sup>a</sup> CPE score.

<sup>b</sup> CD4+ count.

<sup>c</sup> Significant.