Variable[a]	HIV group (n=34)	Controls (n=76)			p-value
Gender, Male	20 (61)	24 (32)			0.005
Education, years	7 (4/11)	4 (4/8)			0.044
Hours of sleep	7 (6/8)	6 (5/8)			0.172
Age, years	60.7 ± 7.1	66.8 ± 3.8			<0.001
HIV Subgroups (n)[b]					
Age, years	G1-pos (17)	G2-pos (10)	G3-pos (7)	G2-neg (52)	G3-neg (24)
	55.0 ± 2.9	62.6 ± 2.3	71.9 ± 1.6	65.0 ± 2.4	71.8 ± 1.7

[a]Data are expressed as mean value ± SD; median (interquartile range), or absolute numbers (percentage); [b]G1=50 59 years; G2=60 69 years; G3 70 years; pos=positive; neg=negative

Table 1 shows the demographic variables considered in the study. In the HIV group, mean time of diagnosis was 13 ± 6 years, mean CD4$^+$ cells were 628 ± 238, mean CD4$^+$ nadir was 282 ± 156. Correlation was not observed between P300 latency and time of diagnosis (p=0.538), CD4$^+$ cells (p=0.575) and CD4$^+$ nadir (p=0.327). e viral load was undetectable for all the participants.

Yevoked potentials related to events P300

P300 was similar between genders; it was delayed in HIV group (p=0.006). Analysis of variance compared the P300 latency according to age subgroups (Table 2). e latencies of N100 (p=0.262), P200 (p=0.419), N200 (p=0.753), and amplitude of N200-P300 (p=0.784) were similar between-groups.

Neuropsychological tests and P300

Among the participants, 10 from the control group and two from the HIV group did not f nish the battery of neuropsychological tests and so they were not considered in the forward analysis. Table 3 shows the results.

Among the neuropsychological tests, Nine Hole test was the one altered in the HIV group and its score was then correlated to P300 latency (Figure 1).

Neuropsychological testing	HIV status	Mean (SD)	p-value*
Raven Colored Matrices	Negative	21.51 (6.22)	0.329
	Positive	22.88 (7.21)	
Rey Auditory Verbal Learning	Negative	40.18 (8.41)	0.385
	Positive	38.42 (11.35)	
ive digits	Negative	9.37 (37.17)	0.677
	Positive	84.95 (52.64)	
Nine Hole (dominant hand)	Negative	21.22 (2.75)	0.007
	Positive	23.42 (5.01)	
Nine Hole (non-dominant hand)	Negative	22.09 (3.17)	0.029
	Positive	23.86 (4.41)	
Frontal Assessment Battery	Negative	15.15 (2.18)	0.554
	Positive	15.47 (2.82)	

The Nine Hole test evaluates attention and the HIV group executed this test worse than control group using either the dominant hand or the non-dominant hand.

supports the theory of progressive neurotoxicity in CNS related to HIV aging even under regular cART and adequate viral control [33,35,44]. A chronic form of CNS-immune reconstitution inflammatory syndrome (CNS-IRIS) may occur [44,45]. e occurrence of CNS-IRIS in the absence of opportunistic infections may be due to an exaggerated immune response to HIV, auto-antigens, poor CNS antiretroviral drug distribution or even a drug-induced neurotoxicity [46,47].

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