

Poster presentation

## Assessment of the cognitive profile of patients with alcohol related cognitive disorders with memory complaints

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### Background

Abuse and dependence on alcohol can lead to the deterioration of cognitive function ranging from amnesic disorder to mild cognitive impairment even dementia. The aim of the present study was to evaluate the neuropsychological characteristics of alcoholic patients that report memory disturbances.

### Material and Methods

Population and method: We studied 77 chronic alcoholic patients aged: 23–83 years, mean duration of alcohol abuse: 16.4 years, from the "Athena" program of the Psychiatric Clinic at "Eginition" Hospital and who complained in the clinical interview of disturbances in memory. 50 healthy volunteers were studied as well. Both groups completed a battery of neuropsychological tools: MMSE, SKT, Verbal Fluency Test (Category & Letter), Clock Test, Digit Span-Forward and Backward.

### Results

Alcoholics had statistically significant lower scores on: MMSE, Verbal Fluency Test-Category-Letter, Digit Span-Forward and Backward ( $p < 0.005$ , t-test) and higher scores on SKT<sub>2</sub> (immediate recall), SKT<sub>4</sub> (numbers arrangement), SKT<sub>6</sub>, SKT<sub>9</sub> (recognition memory) ( $p < 0.005$ , Kruskal-Wallis test). In alcoholic subjects correlations  $R$  were found between MMSE, SKT, SKT<sub>6</sub>, SKT<sub>7</sub>, Verbal Fluency Test-Category-Letter, Clock Test, Digit Span-Forward and Backward and age and MMSE, Clock Test, Digit Span-Backward and years of alcohol abuse (Table 1).

### Discussion

Alcoholic patients presented mild disturbances in immediate memory, recognition memory, attention, verbal fluency, working memory. With regard to the effect of age in alcoholic patients, we observed that all the cognitive functions presented deficiencies. These deficits may be accentuated by age, but we cannot assume persistent cognitive impairment in alcoholic patients. On the other hand, years of abuse limit the wide spectrum of cognitive disorders to visuospatial and working memories disabilities, which reflect frontal lobe dysfunction.

**Table 1: Alcoholics vs Controls in Neuropsychological Tests**

Tests	Alcoholics	Controls
MMSE	27.49 ± 3.70	28.98 ± 0.82*
SKT	6.84 ± 5.88*	2.00 ± 1.43
SKT2	1**	0
SKT4	1**	0
SKT6	1**	0
SKT8	1	1
SKT9	1**	0
VFT-Category	13.29 ± 5.00	21.38 ± 2.35*
VFT-Letter	8.23 ± 3.58	21.62 ± 2.35*
DS-Forward	6.31 ± 1.14	6.98 ± 0.82*
DS-Backward	3.90 ± 1.11	5.22 ± 0.62*

\* $p < 0.005$ , t-test, \*\* $p < 0.005$  Kruskal-Wallis

**Table 2: Correlation between Age and Duration of Abuse vs. Neuropsychological Tests**

	<b>MMSE</b>	<b>SKT</b>	<b>SKT6</b>	<b>SKT7</b>
Age (years)	-0.449 p = 0.000	0.252 p = 0.027	0.267 p = 0.019	0.271 p = 0.018
Duration of abuse (years)	-0.274 p = 0.016	0.116 p = 0.312	0.0244 p = 0.836	0.007 p = 0.537
	<b>VTF-Category</b>		<b>VTF-Letter</b>	<b>Clock Test</b>
Age (years)	-0.39 p = 0.000		-0.379 p = 0.001	-0.368 p = 0.001
Duration of abuse (years)	-0.138 p = 0.230		-0.119 p = 0.303	-0.267 p = 0.019
	<b>Digit Span Forward</b>		<b>Span Backward</b>	
Age (years)	-0.29 p = 0.010		-0.475 p = 0.000	
Duration of abuse (years)	-0.113 p = 0.326		-0.223 p = 0.051	

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