

Severity of insomnia correlates with cognitive impairment

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INTRODUCTION AND METHODS. Cognitive deficits in insomnia have been already reported (5), however, a correlation between cognitive impairment and severity of insomnia was not as yet studied. Sixteen not medicated patients with primary insomnia according to DSM-IV (4), 7 men and 9 women, of mean age 40.8 year, were compared to 16 controls, matched according to age, sex and education. Standard polysomnographic data (PSG) were recorded. The next day all the subjects completed Athens Insomnia Scale (AIS) (7), Hyperarousal Scale (HS) (6), Hamilton Depression Rating Scale (HAM-D), Beck Depression Inventory (BDI), Multiple Sleep Latency Test (MSLT) (3), Continuous Attention Test (CAT) with simple reaction time (RT) (8) and Selective Reminding Test (SRT) (2).

RESULTS AND DISCUSSION. The psychophysiological differences between patients and controls are shown in Table I. HAM-D and BDI scores were elevated in patients, although none of the patients met clinical criteria of depression. Insomniacs did not differ in the immediate recall, but the number of repetitions necessary to learn all the items of SRT was greater in patients. Insomniacs usually complain of poor performance, however, learning impairment has not been documented in insomnia. Degree of the learning impairment correlated with insomnia score (Fig. 1). Cognitive deficit cannot be due to a daytime sleepiness because sleep latency in all MSLT sessions was not shorter in insomniacs. No correlations between results of SRT and standard PSG parameters were found, in accordance with the thesis that subjective feeling of nonrestorative sleep and other accompanying deficits are only symptoms of an underlying 24-hour disorder (1).

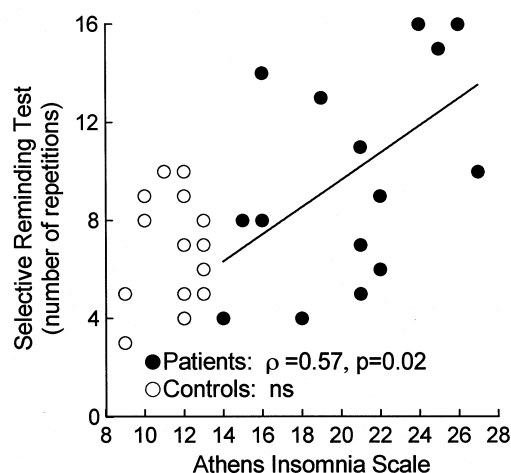


Table I

Psychophysiological correlates of primary insomnia			
	Patients <i>n</i> = 16 ± SD	Controls <i>n</i> = 16 ± SD	
Sleep efficiency	90.06 ± 6.88	94.73 ± 4.85	U = 64.5 <i>P</i> = 0.015
AIS	20.75 ± 4.09	11.50 ± 1.63	U = 0.5 <i>P</i> < 0.00001
HS	65.00 ± 7.54	55.12 ± 8.74	U = 49.0 <i>P</i> = 0.003
HAM-D	6.40 ± 2.4	0.50 ± 1.0	U = 2.5 <i>P</i> < 0.001
BDI	6.80 ± 4.6	2.20 ± 3.6	U = 42.5 <i>P</i> = 0.001
RT (ms)	514.60 ± 69.24	577.44 ± 78.25	U = 65.0 <i>P</i> = 0.02
SRT (number of repetitions)	10.06 ± 4.31	6.56 ± 2.25	U = 68.5 <i>P</i> = 0.02

Fig. 1. Correlation of selective reminding test with Athens insomnia scale.

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