

Plasma ADAM10 and cognitive performance in cognitively health older adults and Alzheimer´s Disease assessed by cognitive batteries

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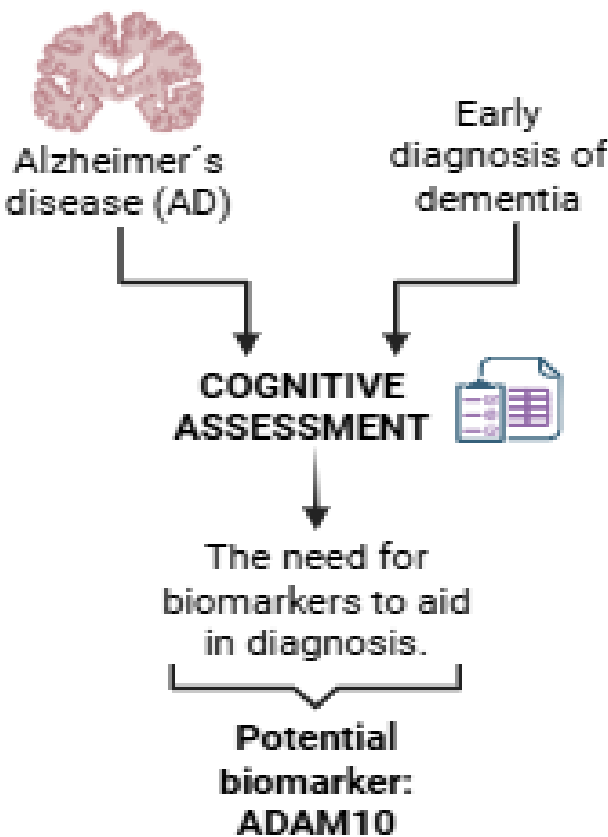
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INTRODUCTION

RESULTS

CONCLUSION



The majority of participants were female (65.7%) and married (60.4%). The mean age was 72.7 years (± 8.9) and the mean years of schooling was 10.6 years (± 6.4). The mean level of ADAM10 in plasma was 28,455 ng/ml (± 12.37).

Table 1. Participants' characteristics according to groups. Data is presented as means and standard deviation in brackets.

Variables	Total (n=135)	CU (n=86)	AD (n=49)	T	p
Age	72,7 ($\pm 8,9$)	68,8 ($\pm 5,9$)	79,6 ($\pm 7,6$)	-8,59	<0,001
YoE	10,6 ($\pm 6,4$)	12,8 ($\pm 6,1$)	6,7 ($\pm 4,7$)	5,93	<0,001
ACE-R	70,1 ($\pm 25,1$)	86,1 ($\pm 9,3$)	42,3 ($\pm 19,1$)	15,04	<0,001
A/O	14,1 ($\pm 4,4$)	16,9 ($\pm 1,5$)	9,2 ($\pm 3,4$)	14,72	<0,001
Mem	16,4 ($\pm 7,6$)	21,3 ($\pm 3,6$)	7,8 ($\pm 4,6$)	17,45	<0,001
VF	7,2 ($\pm 3,9$)	9,4 ($\pm 2,6$)	3,3 ($\pm 2,7$)	12,83	<0,001
Lang	20,9 ($\pm 6,3$)	24,3 ($\pm 2,5$)	14,9 ($\pm 6,5$)	9,58	<0,001
Vis	12 (± 4)	14,3 (± 2)	8 ($\pm 3,6$)	11,13	<0,001
CERAD-WL	-	-	-	-	-
IR	14,1 ($\pm 6,8$)	17,9 ($\pm 4,8$)	7,6 ($\pm 4,4$)	12,23	<0,001
DR	4,3 ($\pm 5,8$)	6,3 ($\pm 6,3$)	0,7 ($\pm 1,6$)	6,08	<0,001
R	8 ($\pm 2,5$)	9 ($\pm 1,3$)	6,3 ($\pm 3,1$)	5,69	<0,001
ADAM10 (ng/ml)	28,455 ($\pm 12,37$)	38,816 ($\pm 12,55$)	24,312 ($\pm 10,98$)	3,03	0,003

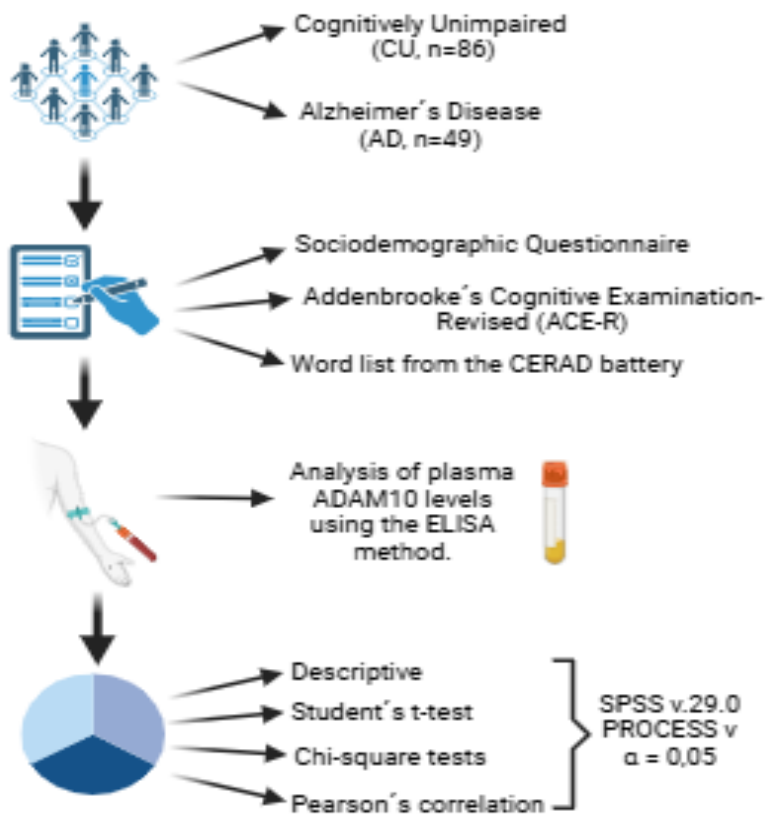
The results demonstrate significant differences in cognitive performance and plasma ADAM10 levels between cognitively unimpaired older adults and those living with Alzheimer's disease.

REFERENCES/CONTACT



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METHODS



CU= Cognitively Unimpaired; AD= Alzheimer's Disease; YoE= Years of education; ACE-R= Addenbrooke's Cognitive Examination; A/O= Attention and Orientation; Mem= Memory; VF= Verbal Fluency; Lang= Language; Vis= Visuospatial; CERAD WL= Consortium to Establish a Registry for Alzheimer's Disease - World List; IR= Immediate Recall; DR= Delayed Recall; R= Recognition.

- People living with AD showed worse overall cognitive performance in all domains assessed by the ACE-R and the CERAD battery ($p < 0.001$).
- Significant correlations were observed between plasma levels of ADAM10 and overall cognitive performance on the ACE-R ($p = 0.001$), as well as with its domains, and with the immediate recall of the CERAD battery ($p = 0.005$).
- ADAM10 levels also correlated with age ($p = 0.004$), level of education ($p < 0.001$), and number of medicine in current use ($p = 0.028$).

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