

CHANGES IN COGNITIVE FUNCTIONS AFTER CAROTID ENDARTERECTOMY. ONE YEAR FOLOW UP

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Background

The effect of carotid endarterectomy (CEA) on cognitive functions is unclear.

The aim of this study was to assess changes in cognitive functions following carotid endarterectomy (CEA) for high-degree stenosis.

Material and methods

Patients without dementia or psychiatric disease including depression were included to the study after signing the Informed consent.

364 patients (181 symptomatic) were analysed from 8 centres during 28 months.

The normality of data distribution was checked using the Shapiro–Wilk test. The Mann–Whitney U test was used for a statistical analysis.

Logistic regression was used to identify factors affecting the changes in ACER.

Results

13 from 145 patients (9%) had new lesion on DWI.

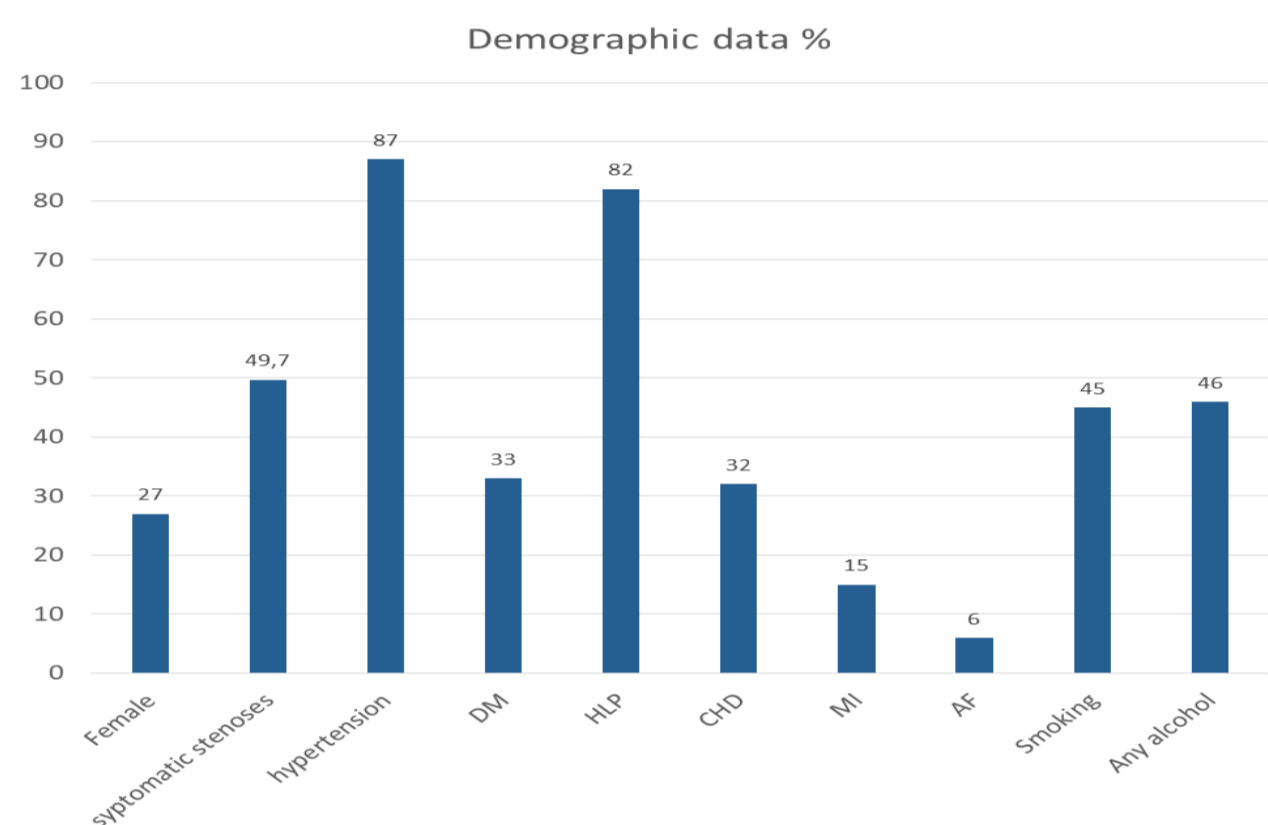
11 (3%) had a new stroke/TIA on day 30 and 3 more (0, 8%) after 1 year.

Cognitive tests before CEA: ACER 83,6±11,2, MMSE 27,3±3,1, CDT 4,3±1,2, SFT 9,8±3,3.

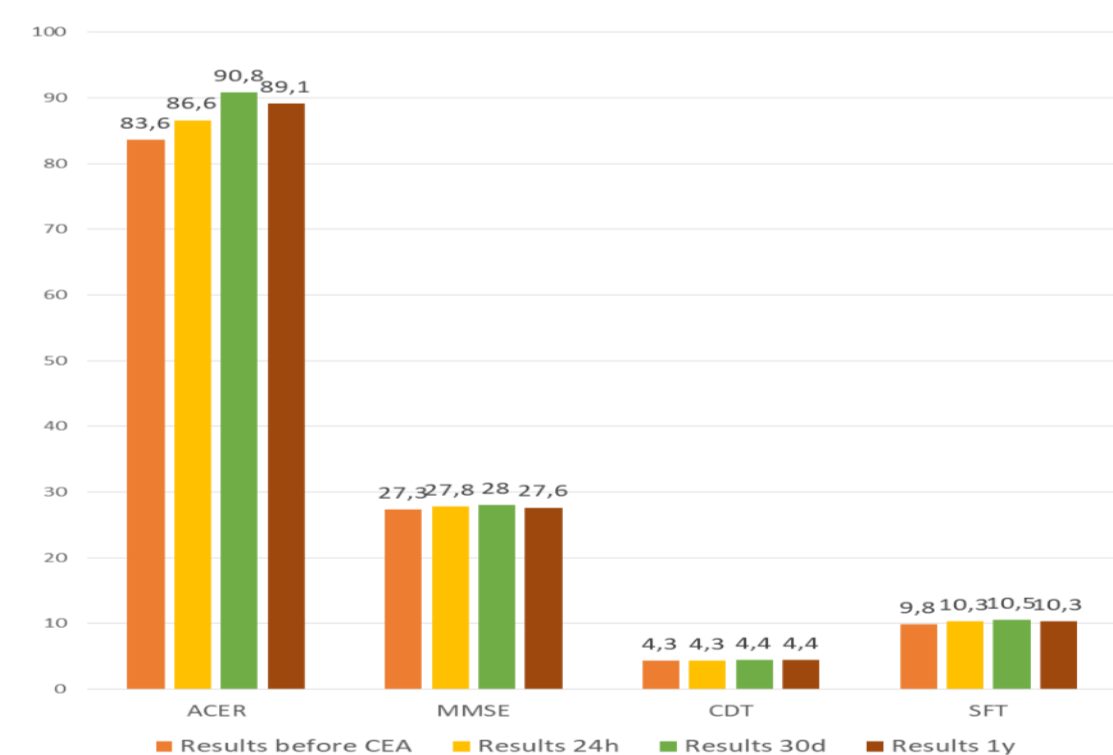
Improvement in tests 24h/30d/1y were 3,0/4,2/2,5; 0,5/0,7/0,3; 0,03/0,13/0,11; 0,5/0,7/0,5 (p<0,05 in all tests)

Symptomatic patients had better improvement in ACER after 1 month (5,5 vs 3,3 ; p = 0,01), after 1 year was no difference (2,5 vs 2,5;p=1,0). No influence of other factors were found.

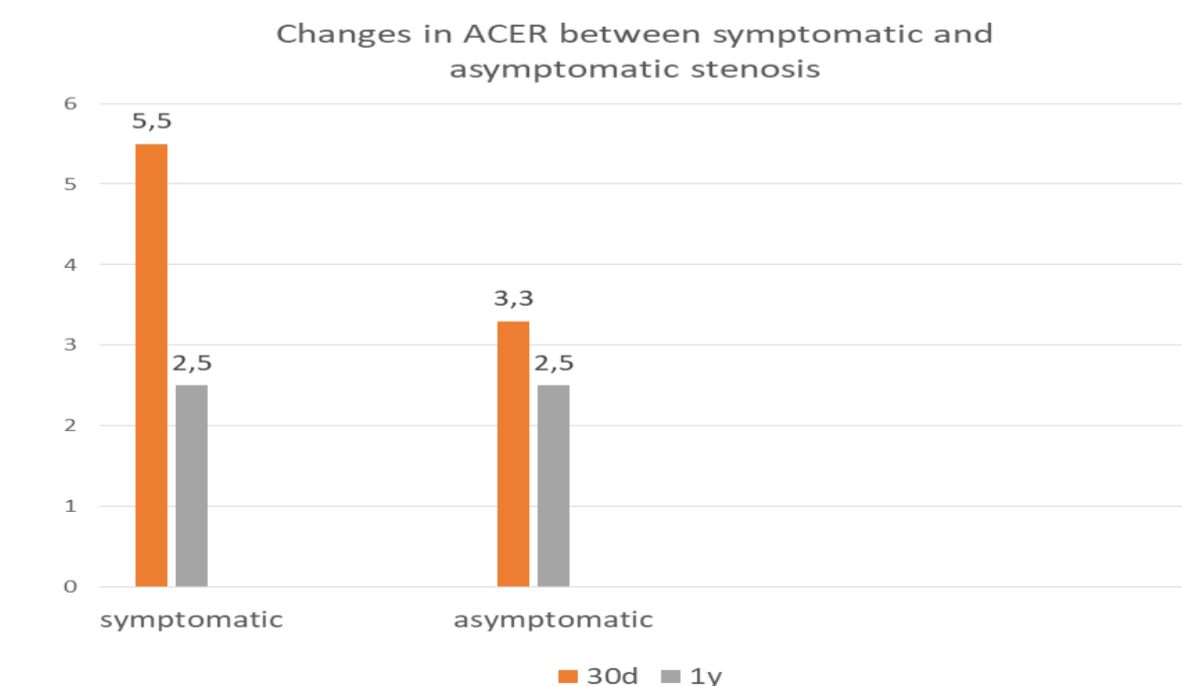
Demographic data		average	n	%
No pts			364	100
Female			100	27
Age	68			
syptomatic stenoses			181	49,7
hypertension			319	87
DM			120	33
HLP			300	82
CHD			117	32
MI			56	15
AF			23	6
Smoking			164	45
Any alcohol			167	46



	before CEA	24h	30d	1y	total
New stroke TIA			11(3%)	3 (0,8%)	14(3,8%)
New DWI lesion (145 pts)		13 (9%)			13(9%)
ACER	83,6(+/-11,2)	86,6	90,8	89,1	p<0,05
MMSE	27,3(+/-3,1)	27,8	28	27,6	p<0,05
CDT	4,3(+/-1,2)	4,3	4,4	4,4	p<0,05
SFT	9,8(+/-3,3)	10,3	10,5	10,3	p<0,05



Changes in ACER between symptomatic and asymptomatic			
	symptomatic sten.	asymptomatic sten.	
30d	5,5	3,3	p=0,01
1y	2,5	2,5	p=1,0



Conclusion

Cognitive functions improved after CEA with maximum on day 30 especially in symptomatic patients.

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