ENDOVASCULAR TREATMENT IN M2-M3 OCCLUSIONS

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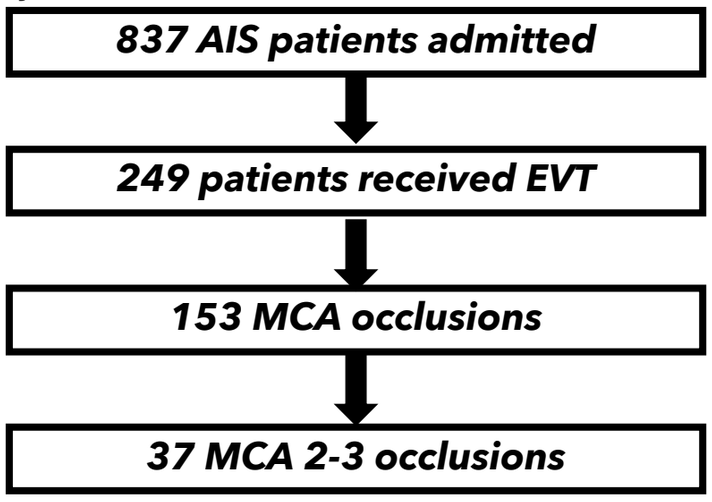
BACKGROUND: Endovascular therapy (EVT) is the standard of care for the treatment of large vessel occlusion strokes. Distal vessel occlusions can cause significant morbidity in terms of functional independence. Safety and efficacy of thrombectomy in M2-M3 occlusions are not well established yet.

METHOD: Brain Angiography and Stroke Centres (BASC) network is constituted by three strategically located comprehensive stroke centers that uses RAPID technology and provide services for Istanbul. Data of 837 acute ischemic stroke patients, admitted between October 2017 and September 2018, were prospectively recorded. The results of 37 patients with MCA M2-M3 segment occlusion who underwent endovascular treatment (EVT) were analyzed and compared to MCA M1 patients. Occlusions were demonstrated by BTA/MRA or DSA.

RESULTS: Out of 249 patients that received EVT, 153 patients (116 in M1, 37 in M2-M3 group) were admitted and treated for MCA occlusion. There was no statistically significant difference in terms of demographics. Mean admission NIHSS score (M1:14+/-6, M2-M3:12+/-6; p:0.03) was higher in M1 patients. More intention to treat cases were noted in M2-M3 patients (M1:5,2%, M2-M3:22,5%; p:0.000) reflecting higher recanalization rate before EVT. Recanalization rate and procedure time were similar. *Although not statistically significant* the rates of good prognosis **(3. months mRS 0-2)(M1 37% M2-M3 50% p:0.176)** and hemorrhage (SITS-MOST) **(M1 2,6% M2-M3 8,1% p:0.155)** were higher while mortality rate **(M1:24%, M2-M3:14%,p:0.247)** was lower.



	M1 (N:116)	M2-M3 (N:37)	p
Age mean	66+/-15	65+/-17	0.740
Age> 80	23,3%	21,6%	1
Male	43,1%	32,4%	0.336
Withnessed	72,4%	81,1%	0.387
ODT mean +/-SD	273+/-271	242+/-218	0.528
ODT270 %	69,3%	69,4%	1
ODT360 %	80,7%	86,1%	0.620
NIHSS mean +/-SD	14+/-6	12+/-6	**0.037**
NIHSS ≧ 10	75,9%	67,6%	0.390
NIHSS ≦ 6	12,1%	21,6%	0.179
DIT mean	10+/-5	13+/-8	**0.032**
HT	74,8%	78,4%	0.826
DM	33%	27%	0.547
HL	44,7%	30,6%	0.174
AF	53,4%	43,2%	0.346
IVT %	42,4%	37,8%	0.704
ITT %*	5,2%	22,5%	**0.000**
FPR	50+/-34	53+/-25	0.657
TICI2b-3 %	87,1%	83,8%	0.759
TICI2c-3 %	52,6%	48,6%	0.709

* After IVT or spontan recanalization

	M1 (N:116)	M2-M3 (N:37)	p
Any HT %	31,3%	24,3%	0.535
SITSMOST %	2,6%	**8,1%**	0.155
Discharge NIHSS mean +/-SD	7+/-7	7+/-7	0.924
3 ay mRS 0-1 %	27,9%	36,1%	0.404
3 ay mRS 0-2 %	36,9%	**50%**	0.176
3 ay mortalite%	24,3%	**13,9%**	0.247

CONCLUSION: In our M2-M3 cohorts, outcome, complication and mortality trends of EVT are in line with the recently published meta-analysis and point to potentially higher postoperative haemorrhagic rate and better 3 month outcome.