

Abstract E-054 Table 2 Correlation between Thrombus density and recanalization success or etiology in MCA only

(mean, SD)	Successful recanalization (n = 51)	Unsuccessful recanalization (n = 14)	p value
Mean Clot Density (HU)	49.2 (5.8)	53.5 (17.1)	0.37
Max Clot Density (HU)	57.4 (6.9)	62.1 (22.6)	0.46
Mean Ratio	1.27 (0.20)	1.37 (0.46)	0.46
Max Ratio	1.30 (0.19)	1.41 (0.59)	0.48
	Large Artery (n = 10)	Cardioembolic (n = 36)	
Mean Clot Density (HU)	49.8 (5.6)	48.8 (6.4)	0.62
Max Clot Density (HU)	59.5 (8.6)	57.2 (6.5)	0.44
Mean Ratio	1.31 (0.15)	1.26 (0.22)	0.36
Max Ratio	1.30 (0.17)	1.30 (0.21)	0.98

Disclosures M. Jagani: None. W. Brinjikji: None. D. Kallmes: 1; C; ev3, MicroVention, Sequent, Codman. 2; C; ev3, Medtronic, Codman. 3; C; Microvention.

E-055 ENDOVASCULAR THERAPY FOR PATIENTS WITH ACUTE LARGE MCA TERRITORY ISCHEMIA: ITS EFFECT ON THE RISK OF SUBSEQUENT DEVELOPMENT OF DEEP VENOUS THROMBOSIS

Z Li, M Cox. *Radiology, Thomas Jefferson University Hospital, Philadelphia, PA*

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Introduction Deep venous thrombosis (DVT) is a well-known complication for patients after acute ischemic stroke, due to decreased mobility of the affected extremities and/or prolonged bedrest. Endovascular recanalization therapy (ERT) for acute ischemic stroke has been shown to be superior to the use of intravenous thrombolytic agents alone. Recent randomized trials demonstrated that qualified patients who presented with acute ischemic stroke and underwent endovascular thrombectomy had improved functional outcome. The authors hypothesize that successful ERT decreases the risk of subsequent DVT development in patients with acute large middle cerebral artery (MCA) territory ischemia.

Methods A retrospective review of an imaging database from January 2011 to January 2016 was performed for patients who had acute large MCA territory ischemia based on CT perfusion and CT angiography and subsequent upper or lower extremity duplex ultrasound and/or chest CT for evaluation of DVT or PE. Patients who underwent successful ERT were identified based on operative reports from electronic medical record. Ultrasound or CT reports were retrieved from PACS to identify patients who developed subsequent DVT or PE. Statistical analysis was performed using IBM SPSS 21.0.

Results A total of 88 patients with acute large MCA territory ischemia secondary to major vessel occlusion were identified. Sixty-three patients, 26 (41.3%) male and 37 (58.7%) female, either were not qualified for ERT or had persistent occlusion despite attempted ERT. The remaining 25 patients, 11 (44.0%) male and 14 (56.0%) female, had complete

revascularization (TICI 3). Number of patients who received intravenous tPA was 23 (36.5%) in the occluded group and 11 (44.0%) in the revascularized group, respectively. The percentage of patients who developed subsequent DVT or PE was greater in the occluded group than the revascularized group (14.3% vs. 4.0%). However, the difference was not statistically significant ($p = 0.159$). Interestingly, 80% of patients developed DVT on the side of the extremity contralateral to the affected cerebral hemisphere or the expected side of the limb affected by the stroke.

Conclusions In patients with acute large MCA territory ischemia, endovascular recanalization therapy appeared to decrease the risk of developing subsequent DVT or PE. However, a larger sample size is needed to demonstrate statistical significance. Interestingly, majority of DVT were developed on the side of the extremity contralateral to the affected cerebral hemisphere.

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E-056 ASSOCIATION OF ENGORGED PERFORATING ARTERY OF BASILAR TOP WITH NON-ANEURYSMAL PERIMESENCEPHALIC SUBARACHNOID HEMORRHAGE

B Moon, S Park, K Jang, D Jang. *Neurosurgery, Incheon St. Mary's Hospital, Incheon, Republic of Korea*

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Introduction Perimesencephalic subarachnoid hemorrhage (PM-SAH) accounts for about 10% of all SAHs, and digital subtraction angiography (DSA) is mostly found to be normal in such patients. The purpose of this study is to investigate the relationship between counts and diameter of engorged perforating artery of basilar top and non-aneurysmal PM-SAH.

Methods DSA findings of all patients who underwent catheter angiography for evaluation of non-aneurysmal PM-SAH between May 2014 and March 2015 were reviewed. Patients with anterior circulation aneurysms were excluded. PM-SAH and control group were evaluated by DSA 3D reconstruction images. Perforating artery diameters were measured and were counted engorged artery. Non-aneurysmal PM-SAH were identified: (1) center of bleeding located immediately anterior and in contact with the brain stem in the prepontine, interpeduncular, or posterior suprasellar cistern; (2) blood limited to the prepontine, interpeduncular, suprasellar, crural, ambient, and/or quadrigeminal cisterns and/or cisterna magna; (3) no extension of blood into Sylvian or interhemispheric fissures; (4) intraventricular blood limited to incomplete filling of the fourth ventricle and occipital horns of the lateral ventricles (ie, consistent with reflux); (5) no intraparenchymal blood.

Results 4 patients with non-aneurysmal PM-SAH and control group with posterior circulation aneurysms or dissection were identified. In patients with non-aneurysmal PM-SAH, mean diameters and counts of perforating artery were 1.002 mm (min-max, 0.85–1.26) and 3.75 (min-max, 3–4). In control group, diameters and counts were 0.663 mm (min-max, 0.5–1.12) and 2.4 (min-max, 1–4).

Conclusions There is a relationship between PM-SAH and engorged perforating artery counts and diameters. In patients of PM-SAH, there were found increased counts and diameters of perforating artery of basilar top.