

**LB-012** **INCIDENCE OF INTRACRANIAL HEMORRHAGE AFTER THROMBECTOMY FOR LARGE CORE INFARCTS: A SUB ANALYSIS OF THE SELECT2 TRIAL**

<sup>1</sup>M Chen, <sup>1</sup>K Joshi\*, <sup>1</sup>B Kolb, <sup>2</sup>M Hill, <sup>3</sup>M Abraham, <sup>4</sup>A Hassan, <sup>5</sup>S Ortega-Gutiérrez, <sup>6</sup>M Hussain, <sup>7</sup>D Pujara, <sup>8</sup>C Sitton, <sup>9</sup>V Pereira, <sup>10</sup>M Ribo, <sup>11</sup>G Albers, <sup>12</sup>B Campbell, <sup>1</sup>A Sarraj. <sup>1</sup>Neurosurgery, Rush university medical center, Chicago, IL; <sup>2</sup>Neurology, University of Calgary, Calgary, AB, CANADA; <sup>3</sup>Neurology, University of Kansas Medical Center, Kansas city, KS; <sup>4</sup>Neurology, Valley Baptist health system, Harlingen, TX; <sup>5</sup>Interventional Neurology, University of Iowa hospitals and clinics, Iowa city, IA; <sup>6</sup>Cerebrovascular diseases, Cleveland clinic, Cleveland, OH; <sup>7</sup>Neurology, University hospitals Cleveland medical center, Cleveland, OH; <sup>8</sup>Radiology, UT health, Houston, TX; <sup>9</sup>Radiology, St. Michael's hospital, Toronto, ON, CANADA; <sup>10</sup>Interventional Neurology, Vall d'Hebron University Hospital, Barcelona, SPAIN; <sup>11</sup>Neurology, Stanford, Palo Alto, CA; <sup>12</sup>Neurology, The Royal Melbourne hospital, Parkville, AUSTRALIA

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**Introduction** Intracranial hemorrhage (ICH) remains a major complication of endovascular thrombectomy for stroke. Both symptomatic ICH and asymptomatic ICH have been shown to portend a worse prognosis after thrombectomy in patients with ASPECTS >6. Incidence of ICH and its effect on the outcomes after endovascular thrombectomy for patients with large cores remains unknown. This study evaluated the incidence and effect of ICH in a subset analysis of the SELECT2 trial.

**Methods** SELECT2 was a prospective, randomized, controlled, open-label, adaptive, international trial to assess endovascular thrombectomy vs medical management in patients with a large core stroke (CT ASPECTS 3-5 and/or ischemic core volume  $\geq$  50ml) due to occlusion of the internal carotid artery or the first segment of the middle cerebral artery, who presented within 24 hours of last known well. We performed a subgroup analysis of SELECT2 data to understand baseline characteristics and outcomes associated with subjects experiencing any ICH, defined by the Heidelberg bleeding criteria (HBC).

**Results** A total of 352 patients were included—172 received medical management (MM) and 180 received endovascular thrombectomy (EVT) plus medical management (EVT + MM). Any intracranial hemorrhage was observed in 34.9% (60/172) in the MM group versus 74.9% (134/180) of patients in the EVT + MM group ( $p < 0.001$ ). Hemorrhagic transformation (HBC 1a or 1b) accounted for 93% of the intracranial hemorrhages in both the MM group (56/60) and the EVT + MM group (125/134). Among those receiving

EVT + MM, successful reperfusion was achieved in 75.6% (34/45) of patients without intracranial hemorrhage versus 81.3% (109/134) of patients with intracranial hemorrhage ( $p = 0.40$ ). Early neurological worsening occurred in 8.9% (4/45) of EVT + MM patients without intracranial hemorrhage versus 29.9% (40/134) with any intracranial hemorrhage (adj. RR: 2.67, 95% CI: 1.01-7.08,  $p = 0.049$ ). This; however, did not result in statistically significant differences in 90-day mRS scores (adj. GenOR: 0.88, 95% CI: 0.68-1.13,  $p = 0.32$ ), functional independence (adj. RR: 1.10, 95% CI: 0.61-1.96,  $p = 0.57$ ), independent ambulation (adj. RR: 0.85, 95% CI: 0.61-1.20,  $p = 0.36$ ), or 90-day all-cause mortality (adj. RR: 1.09, 95% CI: 0.84-1.41,  $p = 0.52$ ) between patients with any intracranial hemorrhage versus those without, after adjusting for treatment modality, age, NIHSS, time from last known well to randomization, ASPECTS and ischemic core volume estimates.

**Conclusion** In a subset analysis of SELECT2 trial, patients receiving EVT had a higher rate of any intracranial hemorrhage when compared with those receiving medical management. Although EVT patients with ICH had a higher incidence of early neurological worsening, there was no difference in 90-day mRS, mortality and discharge dispositions between those with or without ICH.

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**LB-013** **REAL WORLD PERFORMANCE OF THE ZOOM ASPIRATION SYSTEM: INSIGHTS FROM THE NVQI-QOD REGISTRY**

<sup>1</sup>K Moldovan, <sup>2</sup>J Singer, <sup>3</sup>B Bohnstedt, <sup>4</sup>T Peebles, <sup>5</sup>D Altschul, <sup>5</sup>B Chancellor, <sup>6</sup>V Vadlamudi, <sup>7</sup>M Hussain, <sup>8</sup>J Tsai, <sup>9</sup>A Khaladi, <sup>10</sup>M Lawson, <sup>11</sup>B Welch, <sup>12</sup>A Patel, <sup>1</sup>M Jayaraman\*. <sup>1</sup>Rhode Island Hospital, Providence, RI; <sup>2</sup>Spectrum Health, Grand Rapids, MI; <sup>3</sup>Indiana University, Indianapolis, IN; <sup>4</sup>Radiology Associates of the Fox Valley, Neenah, WI; <sup>5</sup>Valley Health System, Ridgewood, NJ; <sup>6</sup>Memorial Hospital, South Bend, IN; <sup>7</sup>The Cleveland Clinic Foundation, Cleveland, OH; <sup>8</sup>The Cleveland Clinic Foundation, Cleveland, OH; <sup>9</sup>Kennestone Hospital, Marietta, GA; <sup>10</sup>Tallahassee Memorial Healthcare, Tallahassee, FL; <sup>11</sup>UT Southwestern, Dallas, TX; <sup>12</sup>Swedish Cherry Hill, Seattle, WA

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**Background** The real-world performance of the Zoom aspiration system is not well studied as compared with preliminary trials.

**Objective** To compare the real-world performance of the Zoom aspiration system with preliminary trials, using data from the NeuroVascular Quality Initiative-Quality Outcomes Database (NVQI-QOD).

**Methods** We retrospectively reviewed the NVQI-QOD Database for all cases where the Zoom aspiration catheters were used. Cases where the Zoom system was used only as a guide catheter, or as second-line were excluded. We also excluded patients with significant pre-stroke disability, or those in whom pre-stroke functional status was not recorded. For all patients, we recorded their baseline demographic information including age, sex, pre-treatment imaging. Procedural details including clot location, first pass and final mTICI scores, time to revascularization and use of adjunctive therapies were also analyzed.

**Abstract LB-012 Table 1** Hemorrhage rates by treatment received

	MM N = 172	EVT + MM N = 180
Any intracranial hemorrhage	60 (34.9%)	134 (74.9%)
Heidelberg Bleeding Classification		
No hemorrhage	112 (65.1%)	45 (25.1%)
1a	29 (16.9%)	51 (28.5%)
1b	27 (15.7%)	74 (41.3%)
1c	0 (0.0%)	4 (2.2%)
2	2 (1.2%)	1 (0.6%)
3a	1 (0.6%)	0 (0.0%)
3c	0 (0.0%)	4 (2.2%)
3d	1 (0.6%)	0 (0.0%)
Symptomatic intracerebral hemorrhage *	2 (1.2%)	1 (0.6%)

**Results** 211 patients met inclusion criteria and were available for analysis. Median age was 70, with 47% Female and median NIHSS of 15. Most common clot location was the M1 segment (92/211, 43.6%) followed by M2 (68/211, 32.2%) and intracranial ICA (21/211, 10%). Medium sized vessels including M3/M4, A2/3, P2 accounted for 13/211 (6.2%) of all patients. For all clot locations, rates of mTICI 2c/3 rate were 37.8% after first pass, and 59.2% overall. For mTICI 2b/2c/3, the rate was 59% first pass, and 91.9% overall. Median time from arterial puncture to recanalization was 22 minutes. The first pass technique was aspiration alone in 67.8% of patients, and aspiration with stent-retriever in the remaining 32.2%. Adjunctive therapies including intra- or extra-cranial angioplasty and/or stenting was performed in 19/211 (9%) of patients. When examining by clot location, rates of final mTICI 2c/3 were 53.8% for ICA, 58.7% for M1, 57.4% for M2 and 69.2% for medium vessels (M3/M4/A2/A3/P2). Among patients with 90-day follow-up, 53.2% were independent (mRs 0-2). Overall rate of symptomatic intracranial hemorrhage was 2.8%.

**Conclusions** We present real world data from the NVQI-QOD registry of the Zoom beveled aspiration system. Overall rates of successful reperfusion are high and there are no safety concerns.

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#### LB-014 MEDICAL STUDENT INTEREST IN NEUROINTERVENTION

A Siddiqui\*, R De Leacy. Mount Sinai Hospital, New York, IL

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**Introduction** Neurointervention is a nascent specialty with growing interest. As a relatively new field with various pathways for training, there is a dearth of information readily available for prospective trainees outlining pathways to creating a neurointerventional practice. This study aims to capture student interest in neurointervention so that targeted approaches can be created to foster trainee interest, and engage and support trainees and inform future efforts to grow and improve the field of neurointervention.

**Methods** Enrolled medical students (M1/2/3/4 or scholarly year) at an LCME/COCA-accredited medical school were asked to complete an online survey. The survey consisted of Likert scale questions regarding medical student exposure and interest in neurointervention, and was deployed via listserv, social media and emails to medical students. Data analysis was conducted via R version 4.2.1 (Vienna, Austria).

**Results** At the time of data analysis, 361 students had completed the survey. A majority (73.4%) of respondents were women. Most respondents (n=221, 61.2%) were aged 22-25, and 179 (49.6%) were white. Most respondents (n=266, 73.68%) were MD candidates, and 90 (24.9%) were DO candidates, with the remainder as dual degree students. Most students (n=153, 42.4%) were unsure of their interest in SNIS due to lack of knowledge in the field, and many (n=206, 57.1%) attributed their lack of interest due to lack of experience in the field. Students indicated lack of mentorship in the field (n=205, 56.8%) was a deciding factor, and 100 (27.7%) indicated little mentorship in the field. Many students felt that the length of training and lack of clear pathways was a deterrent to the field (n=281, 77.8%). A total of 335 (92.8%) of students felt that diversity representation was a deciding factor in their interest or lack of interest in neurointervention.

**Conclusion** Targeted approaches are necessary to foster trainee interest and promote student inclusion in neurointervention. Lack of mentorship, representation, and clear pathways were identified as reasons for a lack of interest in the field. Future studies should target residents, and efforts should be made to assess interventions and programs that will foster trainee exposure and interest and build trainee confidence in their decision to pursue a potential career in neurointervention.

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