patients undergoing the VIP procedure. This abstract represents interim analysis from data currently available from the clinical trial (NCT03580434).

**Results** Seventeen patients from 8 sites in 3 different countries (USA, France, Jordan) were preliminarily enrolled in the trial from Feb 2019 - Feb 2022. The cohort included 5 men and 12 women, with a mean age of 63 years (range: 40–79) who were implanted with the V-STRUT® Vertebral Implant to treat vertebral fractures. The procedure was performed on 6 tumor, 8 osteoporotic and 3 traumatic lesions located in L1 (N=5), L2 (N=2), L3 (N=6), L4 (N=3) and L5 (N=1). The median procedure duration was 59 minutes (sd 38, range: 18–140). There were no intraoperative adverse events or serious adverse events. General anesthesia was used in 76.47% of cases, and MAC or conscious sedation was used successfully in 23.52% of cases. The mean cement quantity used in procedures was 5.6cc (range: 2 - 10), showing similar safety outcomes with 5 different cement types. Average duration of hospital stay was 2.5 days, with an outlier of 63 days. After a mean follow-up of 166 days (range: 13–458), no device-related adverse events were recorded, and none of the patients required reoperation. There was one case of cement leakage to the inferior disc, and one case of persistent edema due to a concurrent chronic fracture (T12) which had not been treated as part of the procedure (L1). Mean Visual Analog Scale (VAS) pain at the time of hospital admission was rated at a mean of 7.1 (sd 2.2). Mean VAS at discharge was 1.9 (sd 1.8), with only one patient experiencing an increase in VAS. Mean VAS at 2mo follow up was 1.2 (sd 1.5). Mean Oswestry Disability Index (ODI) at the time of operation was 43.8 (sd 21.6), and at 2mo follow up was 18.9, with only one patient having an increased ODI at 2mo. Mean ODI at 12mo follow up was 17.

**Conclusions** This is the largest trial analyzing outcomes with this novel device, which supports its safety and efficacy.

**Disclosures** N. Siddiqui: None. R. De Leacy: None.

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### E-267

**STATIN THERAPY DOES NOT INFLUENCE THE SPEED OF CHRONIC SUBDURAL HEMATOMA RESOLUTION AFTER MIDDLE MENINGEAL ARTERY EMBOLIZATION: SINGLE-CENTER EXPERIENCE**


**Introduction** Statins have been proposed to improve resolution of chronic subdural hematomas (cSDH) after surgical evacuation. To the best of our knowledge, this effect has not been investigated yet in cSDHs treated solely with middle meningeal artery (MMA) embolization. In this study, we evaluate non-trial patients with cSDH treated with MMA embolization alone at our institution, aiming to compare the speed of resolution between patients with and without statin therapy.

**Methods** We retrospectively searched our center’s database of cSDHs. We included patients treated with MMA embolization alone, without previous or subsequent surgical evacuation, who were not enrolled in ongoing clinical trials. Information extracted were demographics, use of antithrombotic medications (anticoagulants and/or antiplatelets), use of statins, and angiographic follow-up. Patients and cSDHs were divided into statin and non-statin groups. Measurement of cSDH was based on non-contrast CT and the formula (maximal axial length x maximal thickness x maximal coronal height)/2. Volume (in millimeters, [mL]) was registered for baseline (immediately prior to embolization), and all subsequent scans available, being performed by 2 independent adjudicators. Volume reduction was defined as the difference between baseline and last available imaging follow-up volumes. Speed of resolution was calculated by dividing the volume reduction by the time length of imaging follow-up available.

**Results** Forty-eight patients (statin group, 16 vs non-statin group, 32) with 50 cSDHs (statin 17, vs non-statin 33) were included. The groups were similar in mean age (statin, 75.8 years vs non-statin, 71.2 years, P=0.248), proportion of males (statin, 41.2% vs non-statin, 36.4%, P=0.890) and use of antithrombotic medications (statin, 29.4% vs non-statin, 24.2%, P=0.741). Median volumes were similar (statin, 29.8mL vs non-statin, 32mL, P=0.888). There was no significant difference in time lengths of imaging follow-up (statin, 71 days vs non-statin, 93 days P=0.401). Median final volume was also similar (statin, 2mL vs non-statin 1mL, P=0.542). Median volume reduction was similar (statin, 23mL vs non-statin, 23.7mL, P=0.959). The median speed of cSDH resolution was not significantly different between the groups (statin, 0.294mL/day vs non-statin, 0.187mL/day, P=0.442). Sub analysis of patients who were not on antithrombotic medications revealed similar findings.

**Conclusions** Statin therapy was not associated with a significantly faster speed of cSDH resolution in our experience.

**Disclosures** S. Houksey: None. A. Monteiro: None. B. Donnelly: None. W. Khawar: None. M. Siddiqui: None. M. Waqas: None. J. Cappuzzo: None. A. Siddiqui: 2; C; Amnis Therapeutics, Apellis Pharmaceuticals, Inc., Boston Scientific, Canon Medical Systems USA, Inc., Cardinal Health 200, LLC, Cerebrotech Medical Systems Inc., Cerenovus, Cerevatech Medical, Inc., 4; C; Adona Medical, Inc., Amnis Therapeutics, Bend IT Technologies, Ltd., BlinkTBI, Inc, Buffalo Technology Partners, Inc., Cardinal Consultants, LLC, Cerebrotech Medical Systems, Inc, Cerevatech Medical., E. Levy: 2; C; Clarinet Medical, GLG Consulting, Guidpoint Global, Imperial Care, Medtronic, Rebound, StimMed, Misonix, Mosiac, Clarion, IRRAS., 4; C; NeXtGen Biologics, RAPID Medical, Clarinet Medical, Cognition Medical, Imperative Care, Rebound Therapeutics, StimMed, Three Rivers Medical. J. Davies: 1; C; NIH NINDS, NSF SBIR. 2; C; Medtronic.
E-269 PROBDNF EXTRACELLULAR VESICLE EXPRESSION IN PLASMA COLLECTED DURING MECHANICAL THROMBECTOMY FROM PATIENTS WITH EMERGENT LARGE VESSEL STROKE

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Abstracts

Introduction Mechanical thrombectomy (MT) and intravenous tissue plasminogen activator are ischemic stroke treatments that assist in restoring blood flow to the brain tissue, but do not guarantee good outcomes. Detection of ischemic cellular alterations systemically in extracellular vesicles (EVs) could be invaluable to disease prognostication and targeted therapeutic development. EVs are nanoparticles released from cells as a means of carrying stimuli specific cargo (e.g. lipids, proteins, and nucleic acids) from one cell to another. We hypothesize that one EV protein of interest, pro brain derived neurotrophic factor (proBDNF), can be clinically relevant and used to predict stroke outcomes/progression.

Materials and Methods Human ischemic stroke plasma (8 females (F)/5 males (M)) collected during MT in ‘Blood And Clot Thrombectomy Registry And Collaboration’ (BACTRAC; NCT03153683) and control plasma (4F/ 7M) were unbanked. EVs were quantified with Zetaview-NTA analysis, following isolation with Exoquick, before proBDNF protein was quantified.

Results EVs measured ~107 nm with 10^{13} particles (EVs)/mL with no significant differences in size or concentration between stroke and control patients with an average age 73.7 and 34.5 years, respectively. EV proBDNF expression was higher in stroke subjects compared to healthy controls (p = 0.0021). During MT, females had higher EV proBDNF that correlated to lower time to recanalization (i.e. infarct time; R2=0.657, p=0.0147). In males, higher EV proBDNF expression correlated (R2=0.812, p=0.0988) to higher Modified Rankin Scores (more disability) at discharge. 

Conclusions These data suggest that EV proBDNF levels can reflect brain damage within hours of stroke onset and should be explored further for translational applications.

Disclosures A. Trout: None. D. Britsch: None. W. Nabershaus: None. J. Turchan-Cholewo: None. B. Maglinger: None. K. McLouth: None. L. Fraser: None. L. Fraser: None. K. Pennypacker: 4; C; Cerelux. A. Stowe: 3; C; Cerelux.