the complicated management and treatment considerations of stroke in the context of these circulatory support devices.

Methods We retrospectively reviewed all patients ECMO who underwent MT for large vessel occlusion (LVO) since 2017 at our institution. Baseline demographics, details regarding placement of ECMO and outcome variables such as recanalization scale, any hemorrhage on post-operative imaging, and mRS at three months were collected for each patient.

Results There were three patients on ECMO identified to have a LVO between 2020–2021. Two patients had internal carotid terminus occlusions and one had a basilar occlusion. The average time from last known well to groin puncture was 294 minutes and the average time to recanalization from groin access was 58 minutes. Two ECMO patients required radial access due to either central aortic cannula or presence of intra-aortic balloon pump. All three patients had TICI 3 revascularization without hemorrhage on post-operative imaging. All patients were eventually decannulated from ECMO. Two patients had mRS 1 at 3 months while one patient was mRS 4.

Conclusion Concomitant with the increasing use of ECMO is the increasing recognition of acute brain injuries, including acute ischemic stroke, which may be caused by a myriad of MCS-driven factors. We share our institutional experience with performing MT in patients on circulatory support and demonstrate that mechanical thrombectomy can be performed safely with good outcomes.


E-168 ANALYSIS OF SAME-PROCEDURE RECORDINGS OF CEREBRAL VENOUS PRESSURE AND CEREBROSPINAL FLUID OPENING PRESSURE IN IDIOPATHIC INTRACRANIAL HYPERTENSION PATIENTS

Introduction/Purpose Idiopathic intracranial hypertension (IIH) is a potentially devastating neurological disorder that results from the rise in intracranial pressure and is diagnosed by cerebral venous pressure (CVP) recordings, cerebrosplinal fluid opening pressure (CSF-OP) greater than 25cm H2O, papilledema, and neuroimaging. At our institution, albeit not routinely, it is common practice to measure the CVP and perform a lumbar puncture (LP) to record the CSF-OP when performing a diagnostic venogram of IIH patients. In addition, follow-up venograms and LPs will be performed to record CVP and CSF-OP from the same procedure. Given the strictly controlled environment when recording CVP and CSF-OP, we aimed to study the relationship between CVP and CSF-OP in IIH patients.

Materials and Methods Following institutional review board approval, the medical records of IIH patients between 2020 to 2021 were reviewed. Those patients who received venous manometry for CVP and LP for CSF-OP during the same neurointervention were included in the study. Patient were then divided into pre-VSS and post-VSS cohorts. Demographic information, CVPs (mmHg) from superior sagittal sinus (SSS), transverse sinus (TS), and sigmoid sinus (SS), and CSF-OP (cmHg) were collected. The trans-stenotic gradient (TSG) was calculated as the difference in pressure between TS and SS. Regression analysis was conducted using the F-test for linear regression model using SSS CVP and TSG to predict CSF-OP.

Results 37 IIH patients were included in the study- 22 patients in the pre-VSS cohort and 15 patients in the post-VSS cohort. All of the patients were female with a mean age of 37 years (STD: 12) and BMI of 36 (STD: 8). The majority of patients had stenosis in the right side (27/37) of the venous sinus system. For the pre-VSS cohort, both TSG and SSS CVP were significantly correlated to CSF-OP (p<0.005). BMI served as a negative control, and it was not significantly correlated to CSF-OP (p>0.1). For the post-VSS cohort, TSG and SSS CVP were not correlated to CSF-OP (p>0.1). This is attributed to the TSG, SSS CVP, and CSF-OP all decreasing after VSS to within normal limits of pressure. SSS CVP was significantly decreased in post-VSS patients compared to those of pre-VSS patients (SSS 13.4 vs 29.2, p<0.001), while that of SS did not change (11.3 vs 12.9, p>0.05). Furthermore, the TSG of the stenosed side significantly reduced in post-VSS patients compared to that of pre-VSS patients (0.9 vs 14.8, p<0.001). CSF-OP was significantly decreased in post-VSS patients compared to that of pre-VSS patients (18.5 vs 31.6, p<0.001).

Conclusion CVP and CSF-OP are significantly correlated in IIH patients; therefore, either recording may provide sufficient evidence for IIH. VSS in IIH patients significantly reduces the pathologically elevated SSS CVP, which also resolves the TSG. Elevated CSF-OPs in IIH patients were also significantly resolved after VSS. CVP, TSG, and CSFOP are valuable in understanding the pathophysiology, diagnosis, and management of IIH.

Disclosures B. Ryu: None. A. Ballout: None. T. White: None. A. Patsalides: None.
extracted for calculation of estimated weighted rates and respective 95% confidence intervals (CI).

**Results** Seventeen articles were included, comprising 1013 patients with 1112 aneurysms. Overall, 76.6% (95% CI 71.7%-82.1%) of patients were females, 85.6% (95% CI 80.2%-91.1%) of aneurysms were located in the anterior circulation and 10.2% (95% CI 5.4%-15%) were ruptured. Use of adjunctive coiling across the studies was 21.2% (95% CI 14.9%-27.5%). Rates of intraoperative and post-operative complications were 2.3% (95% CI 1.3%-3.3%) and 3.4% (95% CI 2.2%-4.6%), respectively. Rate of complete occlusion was 73.8% (95% CI 65.4%-82.2%). Mortality rate was 1.5% (95% CI 0.5%-2.5%).

**Conclusion** Surface modified FDs had overall high rates of complete occlusion and low rates of complications and mortality in our meta-analysis. Direct comparison with non-surface modified devices are needed.

**Disclosures** A. Monteiro: None. S. Ciecierska: None. S. Khan: None. W. Khawar: None. A. Khan: None. B. Donnelly: None. M. Waqas: None. J. Cappuzzo: None. N. Fayyaz: 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; Claret Medical, GLG Consulting, Guidepoint Global, Imperial Care, Medtronic, Rebound, StimMed, Misonix, Mosiac, Clarion, IRRAS. 4; C; NeXtGen Biologics, RAPID Medical, Claret Medical, Cognition Medical, Imperative Care, Rebound Therapeutics, StimMed, Three Rivers Medical.

**E-170 EARLY EXPERIENCE WITH PATIENT TREATMENT AND DRUG DELIVERY USING IRAAFLOW: AN AUTOMATICALLY IRIGATING & DRAINING VENTRICULAR CATHETER**

**Introduction** External ventricular drains are a mainstay of neurosurgical critical care. They are used in the treatment of a large variety of acute neurosurgical illnesses. External ventricular drain technology has not meaningfully changed since their initial introduction. Recently, an automatically irrigating and draining external ventricular catheter Irraflow (Irras, San Diego, CA, USA) was introduced.

**Methods** Here we report a series of consecutive cases treated with the IRRAfloow device at a large academic medical center.

**Results** 31 patients were treated with 33 Irraflow devices over a period of 10 months. Diagnoses treated included subdural hematoma (11), intraventricular hemorrhage (16), subarachnoid hemorrhage (2), ventriculitis/abscess (4). Drain days ranged from 1–18 and ICU days ranged from 0–21. Irrigation rates ranged from 0ml/h to 60ml/h. Medications instilled included tPA and vancomycin. 5/31 drains required revision, 4 for sub-optimal position and 1 for pre-existing ventriculitis that failed to clear. No drains experienced new infections or clotting that required replacement or revision.

**Conclusions** Here we present the largest case series using an automatically irrigating and draining ventricular catheter for a variety of diagnoses. Safe and effective protocols for continuously irrigating catheters as well as continuous intrathecal medication administration can be developed. Continuously irrigating ventricular catheters can be safely used in the critical care unit and may avoid some of the most common complications associated with external ventricular drainage.

**E-171 GENERAL ANESTHESIA VERSUS MONITORED ANESTHESIA CARE FOR MIDDLE MENINGEAL ARTERY EMBOLIZATION FOR CHRONIC SUBDURAL HEMATOMAS: PROPENSITY SCORE-MATCHED STUDY**

**Introduction** The choice of general anesthesia (GA) versus monitored anesthesia care (MAC) in middle meningeal artery embolization procedures (MMAE) for chronic subdural hematomas (cSDH) tend to differ between institutions and are usually left to the care team discretion given the lack of standard guidelines. We aim to compare GA versus MAC in MMAE in terms of clinical and radiological outcomes in a large multicenter cohort.

**Methods** A series of consecutive patients undergoing MMAE for cSDH at 9 North American centers (2018–2021) were included in this analysis. Patients were categorized into two groups: those who were treated with GA or MAC. Patients’ clinical baseline and SDH characteristics and technical/clinical outcomes were compared between groups. Utilizing the propensity score matching (PSM) algorithm, patients were matched using nearest neighbor controlling for: age, gender, concurrent/prior surgical evacuation, maximal hematoma thickness, and midline shift (both in millimeters), pre-procedure platelets count and antplatelet/antiocoagulation therapy. The primary endpoint was treatment failure defined as hematoma reaccumulation or clinical deterioration requiring re-intervention within 90days from index procedure. Technical feasibility and radiological improvement (i.e., ≥50% reduction in maximal hematoma thickness within 90days/last available follow-up) were assessed as secondary outcomes.

**Results** Over the span of 3 years, 538 patients (mean age 72.3 years, 27.2% females) underwent 625 MMAE procedures, of which 348 (64.7%) were performed under MAC and 190 utilizing GA (35.3%). After running the PSM algorithm, 72 matched pairs were generated with similar clinical and radiographic characteristics. There was a trend for higher rates of treatment failures requiring re-intervention in the GA group compared to the MAC cohort (13.9% vs 2.8% respectively; p=0.09), however, it didn’t reach statistical significance.