ICAD who fails BMM. However, PBA of non-rapid-exchange system for ICAD has been frequently undermined due to the increase incidence of arterial recoil, restenosis and dissection.

Objective We report three cases of PBA using rapid-exchange coronary balloon for the treatment of symptomatic refractory ICAD in the vertebrobasilar arterial system who failed BMM. **Cases:** The cases consist of a 73-year-old-man with 90% vertebral artery stenosis, a 66-year-old-woman with 95% vertebrobasilar junction stenosis and a 49-year-old man with 98% stenosis of the basilar artery. Patients had history of hypertension, hyperlipidemia and smoking and failed BMM. Therefore, underwent rapid-exchange PBA using undersized Maverick coronary balloons. First case required single PBA using 2.5×20 mm balloon, 2nd required two PBA with 2×20 mm in two sessions and 3rd required single session three PBA using 2×20 mm. PBA resulting in reduction of stenosis less than 50% in all without any events and achievement of good clinical outcomes.

Conclusions Rapid-exchange PBA is technically feasible and may offers an alternative option to refractory ICAD who fails BMM. Further studies are warranted.

Disclosures Y. Lodi: None. S. Chin: None. B. Pulgarin: None. Z. Weiss: None. V. Reddy: 2; C; Terumo. 3; C; Janssen, Chiesi Inc, Portola.

E-126 TRANS RADIAL ONYX MIDDLE MENINGEAL ARTERY EMBOLIZATION FOR SUBACUTE CHRONIC SDH: SINGLE CENTER SERIES

¹G Rajah*, ¹M Waqas, ¹R Dossani, ²A Gong, ²K Rho, ¹S Housley, ²H Rai, ²F Chin, ¹M Tso, ¹E Levy, ¹A Siddiqui, ¹K Snyder, ¹J Davies. ¹Neurosurgery, University at Buffalo, Buffalo, NY; ²Jacobs School of Medicine, University at Buffalo, Buffalo, NY

10.1136/neurintsurg-2020-SNIS.158

Introduction Middle meningeal artery (MMA) embolization for the treatment of subacute/chronic subdural hematoma (cSDH) is an emerging therapy for minimally invasive treatment of subdural blood products. Trans radial access (TRA) may offer certain benefits to this patient population who are often on blood thinners with multiple comorbid medical issues.

Methods 46 consecutive patients between 2018 and January of 2020 undergoing trans radial access for MMA embolization with Onyx were analyzed from a single center prospectively maintained database. Patient demographics, comorbidities, ambulatory times, subdural resorption status, and guide catheter type were recorded. We specifically looked at conversion to femoral access and complication rates from access for this series. Multivariate analysis with SPSS version 25 was utilized.

Results 46 patients were included in this study. The average age was 71.7 ± 14 years. TRA was successful for MMA embolization in 44 patients (95%). There were no access site complications. The mean cSDH size was 14 ± 5 mm. 5 patients had recurrent cSDH prior to undergoing MMA embolization (10.8%). 4 patients (8.7%) had adjuvant MMA embolization performed within 24 hrs of burr hole evacuation. Symptomatic improvement was seen in 88.6% of patients (39/44). Mean length of stay was 4 ± 3 days, all patients previously ambulatory were ambulated immediately post procedure. 3 patients were appropriate for same day discharge. Mean followup was 8 weeks ± 4 . 86.4% of patients had either resolution or partial resolution of the cSDH at mean follow-up. Univariate analysis revealed use of antiplatelet agents was associated with failed resorption of cSDH (83.3% vs 23%,

$P=0.009$). Charlson comorbidity index, gender, age, and treatment approach (adjuvant vs primary) were not associated with failed resorption status. 48% of patients had a Charlson Comorbidity index >5 . 91% of TRA embolizations were performed with a 6F 071 guide catheter.

Conclusion MMA embolization with Onyx for cSDH appears to result in symptomatic and radiographic relief in the majority of patients. Trans radial access via 6F 071 guide catheter in this population with numerous comorbidities offers a safe and effective strategy for early ambulation and procedural success.

Disclosures G. Rajah: None. M. Waqas: None. R. Dossani: None. A. Gong: None. K. Rho: None. S. Housley: None. H. Rai: None. F. Chin: None. M. Tso: None. E. Levy: None. A. Siddiqui: None. K. Snyder: None. J. Davies: None.

E-127 CLOPIDOGREL HYPER-RESPONSIVENESS IS ASSOCIATED WITH HEMORRHAGIC COMPLICATIONS POST CEREBROVASCULAR STENTING PROCEDURES

¹S Muram*, ²K Panchendrabose, ¹M Eagles, ¹M Suheel, ¹A Mitha. ¹Neurosurgery, University of Calgary, Calgary, AB, Canada; ²Biomedical Engineering, University of Calgary, Calgary, AB, Canada

10.1136/neurintsurg-2020-SNIS.159

Background Anti-platelet therapy is an important part of the treatment regimen in patients who are receiving a cerebrovascular stent, in order to reduce the incidence of thromboembolic complications. However, there is a known variation in patient response to anti-platelet medications. Theoretically, patients with decreased responsiveness may be at increased risk of ischemic complications while those with increased responsiveness may be at a heightened risk of bleeding. The objective of this investigation was to determine if patients with an increased response to clopidogrel were at an increased risk of developing post-procedural hematomas.

Methods A prospective Research Ethics Board (REB) approved study was performed on consecutive patients undergoing endovascular placement of a cerebrovascular stent at the Foothills Medical Centre in Calgary, Alberta from 2019–2020. Inclusion criteria were patients over 18 years of age, and on dual anti-platelet therapy consisting of aspirin and clopidogrel for at least 3 days prior to the procedure. Platelet function testing was performed on blood samples taken before insertion of the stent using whole blood impedance aggregometry to determine the responsiveness to aspirin and clopidogrel. As per the REB protocol, treating neurointerventionalists were blinded to the aggregometry results. The primary study endpoint was the development of hemorrhagic complications during or after the procedure. Parametric and receiver operator curve analysis was used to assess for predictors of our primary outcome.

Results To determine the cut-offs for ASA and clopidogrel responsiveness, whole blood aggregometry was first performed on 25 control patients who were not on anti-platelet agents. Subsequently, 50 consecutive patients undergoing cerebrovascular stenting procedures fit our inclusion criteria. 7 (14.0%) of these patients developed a hematoma either intracranially ($n=1$) or at the puncture site ($n=6$). Age, gender, smoking status, access site, or stent location were not associated with hemorrhagic complications. Based on our controls, ASA hyperresponders could not be identified using whole blood aggregometry due to the normal response being 0–1 ohms. With these cut-offs, however, 49 (98%) of our patients were