Methods This is a retrospective study of patients with aneurysms who underwent FDS embolization between November 2019 and February 2022. We collected demographics, clinical, peri-operative, and outcome findings by chart review. Aneurysm occlusion rates were scored on the Raymond-Roy classification scale immediately post-FDS placement and at 6-month follow-up. We conducted univariate analysis to compare the FDS types for these covariates.

Results We analyzed 62 patients with aneurysms treated with Evolve (n = 25, 40.3%), Pipeline (n = 31, 50.0%), and Streamline (n = 6, 9.7%) FDSs. Of aneurysms reviewed, 14 aneurysms (22.6%) were ruptured on admission and 16 aneurysms (25.8%) were a retreatment from a prior intervention. To control for severity of presentation, we stratified our analysis to include only first-time and non-ruptured aneurysms (n = 31) treated with Evolve (n = 20, 64.5%) and Pipeline (n = 11, 35.4%) FDSs. Patients treated with Streamline stents were excluded due to a low sample size upon stratification. We found no statistically significant difference between Evolve and Pipeline stents when assessing intra-operative complication rates. At 6-month follow up, we also report no statistically significant differences when comparing modified Rankin scores, aneurysm occlusion, and rates of in-stent stenosis between Evolve and Pipeline stents (p > 0.05). However, the Evolve stent achieved lower air Kerma dosages and fluoroscopy times (n = 20, 475.5 mGy and 14.35 minutes) compared to the Pipeline stent (n = 11, 1933.0 mGy and 37.9 minutes) (p < 0.001).

Discussion In conclusion, our analysis shows that Evolve FDS may provide quicker operative experiences for both the physician and patient. While this does not seem to imply any significant difference in outcome measures from our study, it may provide an economical time benefit to the healthcare setting. Future studies should focus on the clinical significance of this difference.

Disclosures A. Williams: None. B. Abraham: None. B. Bohnstedt: 2; C; Other. R. James: None.

## E-147

**EPHRIN RECEPTOR BETA 1 SINGLE NUCLEOTIDE POLYMORPHISMS IN ASSOCIATION WITH AGE IN ACUTE STROKE PATIENTS UNDERGOING THROMBECTOMY**

J Fraser, A Dabney, D Vicari, D Rivet, B Woodward, A Nanda, D Fiorella, S Baltan, F Sohrabji, K Pennypacker, C Kellner, University of Kentucky, Lexington, KY; Biostatistics, Texas AandM University, College Station, TX; Mount Sinai School of Medicine, New York, NY; Neurosurgery, Virginia Commonwealth University School of Medicine, Richmond, VA; Vizta Radiology, Knoxville, TN; SSM Health, Fenton, MO; SUNY Stony Brook, Stony Brook, NY; Oregon Health and Science University, Portland, OR; Texas AandM University, Bryan, TX; Neurology, University of Kentucky, Lexington, KY; Neurosurgery, Mount Sinai School of Medicine, New York, NY

Background Ephin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. The Ephrin Receptor Beta 1 (EPHB1) is one of several developmentally associated growth inhibitors induced during ischemic models. Using the INSIGHT Registry, a multicentered ‘multi-omic’ analysis of thrombi removed during human thrombectomy, we can analyze variances in single nucleotide polymorphisms for EPHB1. Our aim in this analysis was to evaluate SNPs previously correlated with ischemic stroke. In this abstract, we present data on EPHB1 single nucleotide polymorphisms (SNP) as it relates to age during acute infarction.

Methods Patients, aged ≥18 years, treated frontline with the Penumbra System® for thrombectomy are included in this analysis. Patient demographics, medical history, radiographic, and procedural information are collected in conjunction with extracted clot and concurrent extracranial arterial blood. For this analysis, we evaluated SNPs previously correlated with ischemic stroke.

Results/Conclusion 193 patients were included in this interim analysis across 23 centers in the United States, between 02/2021 and 11/2021. For the EPHB1 SNP (rs13073658), Table 1 shows the numbers and proportions of patients with varying expressions of the SNP. While no patients 50 or older were homozygous for the SNP, 16% of those under 50 years old were. The potential relationship between EPHB1 SNP and stroke in younger patients requires further evaluation.

<table>
<thead>
<tr>
<th>rs13073658 EPHB1 Expression – N (%)</th>
<th>BB</th>
<th>AB</th>
<th>AA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt; 50</td>
<td>20 (80%)</td>
<td>1 (4%)</td>
<td>4 (16%)</td>
</tr>
<tr>
<td>Age ≥ 50</td>
<td>128 (76%)</td>
<td>40 (24%)</td>
<td>0</td>
</tr>
</tbody>
</table>

Disclosures J. Fraser: 1; C; University of Kentucky, American Heart Association. 2; C; Stream Biomedical, Penumbra, Medtronic. 4; C; Fawkes Biotechnology, Cerelex. A. Dabney: None. J. Vicari: None. D. Rivet: None. B. Woodward: None. A. Nanda: None. D. Fiorella: None. S. Baltan: None. F. Sohrabji: None. K. Pennypacker: None. C. Kellner: None.