several challenges remain, such as device compression, incomplete occlusion, and thromboembolic complications. Changes in intra-aneurysmal flow after the use of the WEB are not well understood and may be important in the performance of the device for aneurysm occlusion. The aim of this study was to characterize the degree of immediate aneurysm occlusion using color-coded quantitative digital subtraction angiography (DSA) after treatment with the WEB.

Materials and Methods We retrospectively reviewed records of 34 patients treated with the WEB between March 2019 and February 2020. Eight patients were excluded from analysis for the use of a concurrent stent or intra-luminal flow-diverter. Measurements of contrast transit times on DSA were calculated with syngo iFlow (Siemens Healthineers AG). Regions of interest were selected within the parent vessel immediately proximal to the aneurysm and within the aneurysm dome before and after treatment with WEB (figure 1). The ratio of aneurysm contrast transit time to parent vessel contrast transit time was obtained before WEB placement and immediately after WEB placement. Transit time ratios were also compared with pre- and post-Pipeline (PED) cases matched for aneurysm size.

Results Out of 26 aneurysms, 24 aneurysms demonstrated an increase in contrast transit time after WEB placement (2.06 s, $p<0.05$), as measured by iFlow analysis. The ratio of aneurysm-to-parent vessel contrast transit time increased significantly after treatment with WEB (1.02 vs. 1.61; $p<0.01$). Similarly, the ratio of contrast transit time increased after PED deployment (1.07 vs. 1.51; $p<0.01$), however the ratio increased significantly more after WEB when compared to PED (67% vs 40%; $p<0.05$). Average aneurysm size was similar between WEB cases (n=26) and PED cases (n=26) (128.2 mm^3 vs 165.1 mm^3, $p=0.52$). The average number of PED devices used per case was 2.2.

Conclusions High rates of immediate aneurysm contrast stagnation can be achieved with use of the WEB. As a flow-diverting device, the WEB offers a greater degree of immediate aneurysm occlusion than the PED. iFlow analysis provides a quantitative measure of post-treatment effect and could represent a predictive tool for successful long-term occlusion.

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E-240 SAFETY AND EFFICACY OF TRACSTAR LARGE DISTAL PLATFORM DURING ENDOVASCULAR TREATMENT OF INTRACRANIAL ANEURYSMS

D Bageac*, R De Leacy. *Neurosurgery, The Mount Sinai Hospital, New York, NY*

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Introduction Increased procedure time during endovascular treatment of cerebral aneurysms is associated with increased anesthesia related complications and radiation exposure. Elimination of the need for intermediate catheters during aneurysm treatment may decrease procedure time and increase cost effectiveness. A novel device -the TracStar Large Distal Platform (LDP) -may offer more distal final positioning when compared to commonly used guide catheters, thus decreasing the need for guide catheter use. We investigate the safety and efficacy of the TracStar LDP when used during endovascular aneurysm treatment.

Methods We perform a multicenter retrospective review of endovascular cerebral aneurysm embolizations during which the TracStar LDP was utilized. Aneurysm location, procedural information, and complications were recorded as detailed in the operative note. Vascular tortuosity was assessed via pre-procedural CTA. Distal-most position achieved with TracStar was determined by review of intra-procedural imaging.

Results A preliminary analysis of 30 cases was performed. Flow diversion was performed in 25 cases (83%), and stent assisted coiling was performed in the remainder. The target aneurysm was located in the ICA in 27 cases (90%), the MCA bifurcation in 2 cases (7%), and the ACA in 1 case (3%). An intermediate catheter was required in 18 cases (60%). TracStar LDP achieved stable access to the Cavernous ICA in 70% of cases. Average procedure time was 67 ± 33 minutes.There were no procedural complications or new neurologic defects after treatment. TracStar LDP was exchanged for an alternative guide catheter in one case due to catheter kinking, and in two cases due to lack of support.

Conclusion Use of Tracstar LDP during flow-diversion and sent-assisted coiling of cerebral aneurysms is safe and effective. Access to the cavernous segment of the ICA was achieved in the majority of cases, and use of an intermediate catheter was not required in 40% of cases. Final analysis of the the full 60 patient multi-center study will be available for presentation at SNIS Annual 2020.

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E-241 A PROSPECTIVE, MULTICENTER STUDY ASSESSING THE EMBOLIZATION OF INTRACRANIAL ANEURYSMS USING WAVE™ EXTRA SOFT COILS, A PART OF THE PENUMBRA SMART COIL® SYSTEM: STUDY PROTOCOL FOR SURF

[1]C Schirmer*, [2]I Kaminsky, [3]M Chaudry, [4]O Zaidat, [5]A Alshekhlee, [6]P Ramakrishnan, [7]M Taqi. *[1]Geisinger, Wilkes-Barre, PA; [2]Radiology Imaging Associates, Englewood, CO; [3]Prisma Health, Greenville, SC; [4]Mercy Health – St. Vincent, Toledo, OH; [5]SSM Health, Bridgeton, MO; [6]Riverside Regional Medical Center, Newport News, VA; [7]Los Robles, Thousand Oaks, CA*

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Introduction/Purpose Initial clinical evidence has shown that coiling with the SMART COIL® System (Penumbra, Inc.) is a safe and durable treatment option for intracranial aneurysms.[1–5] The WAVE™ Extra Soft Coil (WAVE) is part of the SMART Coil System and is specifically designed as a fill and finish coil. The primary objective of the SURF study, a post-market registry, is to assess the utility of WAVE as a fill and finish coil to support adequate occlusion at one year follow-up. A secondary objective is to compare the ability of digital subtraction angiography (DSA) and magnetic resonance angiography (MRA) to detect incomplete occlusion in the coiled aneurysms.

Materials and Methods SURF is a post-market, prospective, multicenter, single-arm, observational study that will enroll approximately 800 consecutive patients at up to 50 centers in North America. Patients age ≥ 18 years, having embolization of intracranial aneurysms, with WAVE as the final finishing coil and Penumbra SMART COIL System accounting for at least 75% of total number of coils implanted, will be