

Abstract P-018 Table 2 Comparison of WEB lateral compression thresholds

	Optimal ROC LC Threshold for Complete Occlusion, >17.1%	Optimal ROC LC Threshold for Adequate Occlusion, >15.7%	Empiric Practical LC Thresholds	p-value*
Number of aneurysms meeting threshold (% of total cohort):	113 (58.5%)	126 (65.3%)	157 (81.3%)	<0.0001
Complete Occlusion at First Follow-up,%:†	68.1	63.5	61.1	0.49
Adequate Occlusion at First Follow-up,%:†	93.8	94.4	94.3	0.98
Complete Occlusion at Last Follow-up,%:†	72.6	70.6	70.1	0.9
Adequate Occlusion at Last Follow-up,%:†	93.8	94.4	94.3	0.98
Retreatment,%:†	4.4	4.8	4.5	0.99

*p-value for the difference between LC threshold groups. †For aneurysms meeting the LC threshold. ROC: receiver operating characteristic; LC: lateral compression.

(65.3%,p-value<0.0001, table 2). There was no significant difference in aneurysm occlusion rates at first follow-up among IAs meeting the 3 different LC thresholds (table 2). Similarly, there was no significant difference in aneurysm occlusion rates at last follow-up among IAs meeting the 3 different LC thresholds (table 2). Further, there was no significant difference in retreatment rates among IAs meeting the 3 different LC thresholds (table 2).

Conclusion There was no significant difference between the performance of the ROC-derived and the empiric practical WEB LC thresholds for the prediction of aneurysm occlusion and retreatment in this large cohort of IAs treated with WEB. The more-inclusive empiric practical WEB LC thresholds may be more clinically-useful in determining whether a WEB device has been sized appropriately.

Disclosures J. Delgado Almandoz: 2; C; Microvention/Terumo. Y. Kayan: 2; C; Microvention/Terumo. A. Copelan: 2; C; Microvention/Terumo. A. Ertelt: None. J. Scholz: None.

P-019

PREDICTORS OF OCCLUSION, LONG-TERM OUTCOMES, AND SAFETY IN A CARGE COHORT OF 780 ANEURYSMS TREATED WITH THE PIPELINE EMBOLIZATION DEVICE

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Background Flow diversion introduced a new paradigm shift in neuroendovascular by providing a more physiologic approach for the treatment of IAs. To date, there are many flow diverters on the market, but we report our experience with the pipeline embolization device, the first flow diverter to be approved by the FDA. We aim to assess the efficacy and safety of PED flow diversion for the treatment of a wide range of aneurysms, as well as look at factors affecting occlusion.

Methods This study was a retrospective chart review of a prospectively maintained database for patients treated with flow diversion between January 2011 and December 2019.

Results Our study included 636 patients with 780 aneurysms. Most aneurysms (707) were in the anterior circulation. 85.3% of aneurysms were saccular with the rest being fusiform (7.9%), dissecting (5.9%), and blister (0.9%). Additionally, 738 aneurysms (94.7%) were unruptured while 41 (5.3%) were acutely ruptured. The median largest

aneurysmal dimension was 6.5 mm (IQR 4 mm - 10 mm), and 162 aneurysms (20.8%) were larger than 10 mm. Symptomatic complications occurred at a rate of 6% (1.4% delayed aneurysmal rupture, of which, 33% occurred in ruptured cases; 1.5% distal intraparenchymal hemorrhage, of which, 20% occurred in ruptured cases; and 3.1% ischemic complications). The complete occlusion rate was 90.3% at a median follow up of 18.5 months, and 93.8% of patients had a favorable neurological outcome (mRS 0 - 2) at last follow up. On multivariate analysis hypertension (p=0.007) and adjunctive angioplasty (p=0.007) were significantly associated with incomplete aneurysm occlusion. The overall mortality rate was 2.6%, of which, 17% were due to ruptured cases.

Conclusion Our findings are in conjunction with those of previous studies and trials. Our complete occlusion rate was >90% at 24 months follow-up with 94% of patients having favorable functional outcomes (mRS 0 - 2). In addition, our complication rate was low (6%) and occurred mainly in ruptured, non-saccular, and large (>10mm) aneurysms. Thus, Flow diversion is safe and effective for the treatment of IAs. Further research is warranted to accurately delineate factors associated with FD failure and thus improving patient care.

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P-020

ANTERIOR CIRCULATION SITE-SPECIFIC RESULTS FOR STENT-ASSISTED COILING – CAROTID VS. OTHERS: ONE-YEAR OUTCOMES FROM NEUROFORM ATLAS STENT PIVOTAL TRIAL

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Background The Neuroform Atlas Stent System is an established treatment modality for unruptured anterior and