Conclusion Our results suggest that higher contrast Injection Rates can significantly increase intraneurysmal pressures during angiography. Whether a ~5% increase in intraneurysmal pressure can cause aneurysm rupture needs to be evaluated. Angiography studies need to be conducted in vivo to verify these findings.

REFERENCES

Disclosures S. Marfoglio: 5; C; Vascular Simulations, Inc. B. Kovarovic: None. W. Hou: None. D. Fiorella: 4; C; Vascular Simulations Inc. C. Sadashivan: 2; C; Vascular Simulations Inc. 4; C; Vascular Simulations Inc. 6; C; Vascular Simulations Inc.

E-211 ANEURYSM SIZE AND IMPACT ON MIDDLE CEREBRAL ARTERY PRESSURE: CHANGES FOLLOWING FLOW DIVERSION
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Background The impact of cerebral aneurysm size on distal intracranial hemodynamics such as pressure is not completely understood, either before or after flow diversion (FD).

Objective To assess the impact of aneurysm size on distal pressure before and after FD.METHODS Beginning in December 2015, prospective measurement of middle cerebral artery (MCA) pressure was completed in consecutive patients with unruptured cerebral aneurysms in the ophthalmic to communicating segments of the internal carotid artery which were treated with a single FD. Pressure was recorded at the M1 segment ipsilateral to the cerebral aneurysm. Ratio of MCA to radial arterial pressure (pressure ratio, PR) controlled for variations in systemic blood pressure. Correlation between aneurysm size and MCA PR was assessed before and after treatment.

Results 29 aneurysms were treated in 27 patients. Mean aneurysm size was 7.4 mm (2–27 mm). Aneurysm size correlated linearly with systolic PR (1% per mm, p=0.001, r²=0.33; figure 1A) and mean PR (0.6% per mm, p=0.03, r²=0.17; figure 1B). After FD, aneurysm size continued to have a linear correlation with the systolic PR (1% per mm, p=0.004, r²=0.28; figure 1A), but not with the mean PR (0.4% per mm, p=0.15, r²<0.1; figure 1B).

Conclusion Aneurysm size affects distal hemodynamics: patients with larger aneurysms have increased systolic and mean MCA PR. After FD, mean MCA PR no longer associates with the aneurysm size, suggesting an effect of the FD on distal intracranial hemodynamics.

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E-212 PULSERIDER IN THE TREATMENT OF WIDE-NECK BIFURCATION ANEURYSMS: INTERIM RESULTS OF THE NAPA TRIAL
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Introduction The NAPA study was a prospective, multicenter, single-arm IDE trial of the PulseRider device as an adjunctive treatment in conjunction with coil embolization of unruptured wide-neck bifurcation aneurysms which was electively discontinued for reasons not related to the safety or performance of the device. We report on the available enrollments in NAPA and their available follow up.

Methods The PulseRider device was implanted in 18/21 enrollments. Available core-lab adjudicated data from the first 18 implants is presented. Of those, 5 have one year follow up data available. Of the 3 device implantation failures, the locations included basilar (1), carotid terminus (1), and ACOMM (1).