The radial force of the Pipeline was able to push a herniated WEB device into the aneurysm in all but one case where a balloon was employed to angioplasty the stent.

Conclusions We believe this is the first series reporting combined use of WEB and Pipeline for the treatment of intracranial aneurysms. Treatment failure rates of PED as a stand-alone treatment have been reported to be from 11.9% to 20%. Intracascular flow diversion with the WEB device allows for increased metal coverage at both the aneurysm neck, preventing inflow, and the aneurysm dome, protecting from rupture. For larger aneurysms the WEB device theoretically protects from a destabilizing mural thrombus. Also, in larger aneurysm were WEB devices have been shown to be less enduring, endoluminal remodeling provides a durable treatment. This series demonstrates the WEB device as a feasible and safe alternative to adjuvant coiling for achieving immediate intracascular flow diversion when using the PED.

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E-237 RUPTURED BLISTER-TYPE CEREBRAL ANEURYSM TREATED WITH FLOW DIVERSION USING A NOVEL ANTIPLATELET AGENT CANGRELOR

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Introduction Blister type aneurysms are challenging to treat surgically and endovascularly with the ideal treatment approach debated. Recently, endovascular procedures, specifically, flow diversion, gained popularity in treating blister aneurysms; however, the need for dual antiplatelet therapy arouses concern, especially in blister aneurysms with their high risk of intraprocedural rupture that may require further intervention. Cangrelor is a novel intravenous P2Y₁₂ platelet receptor antagonist with reversible binding and rapid onset and offset of action. These characteristics are appealing for use in endovascular procedures and may mitigate some concerns associated with other P2Y₁₂ receptor antagonists.

Case Summary This is a 42-year old female who presented with sudden onset of severe headache, nausea, and vomiting. On exam, she was drowsy with no focal neurologic deficits. Initial CT head, CT angiogram, and digital subtraction angiography (DSA) were negative for aneurysm or other vascular pathology. On post bleed day (PBD) 7, repeat DSA demonstrated severe vasospasm and a nonspecific ectatic segment along the distal intracranial internal carotid artery (ICA). On daily angiograms for intraarterial spasmolysis, the ectatic segment remained unchanged until PBD 14, when it began to enlarge and exhibited rapid growth over several days.

Management We treated this patient endovascularly using a pipeline flow diversion device. Immediately prior to pipeline placement, in addition to aspirin and heparin, we also began infusing cangrelor, a novel, reversible, intravenous P2Y₁₂ platelet receptor antagonist with rapid onset and offset of action. After the procedure, she transitioned from cangrelor to prasugrel. Our patient tolerated the procedure well, and on post-procedure day 4, she was discharged home on daily prasugrel and aspirin. To date, our patient is doing well clinically, and her pipeline appears patent with no evidence of aneurysm recurrence.

Conclusion This is one of the first reports of the use of cangrelor in neuro-endovascular procedures. This is important as cangrelor has the potential for improving the safety of endovascular procedures especially in patients where treatment is associated with high risks of intraprocedural bleeding or other complications that may require further intervention, such as in treatment of blister aneurysms.

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E-238 RELATIVE ANGLE OF DEFLECTION CORRELATES WITH ANEURYSMAL RUPTURE STATUS IN POSTERIOR COMMUNICATING ARTERY ANEURYSMS

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Background The ability to prognosticate rupture for cerebral aneurysms is paramount to prevent the risks inherent to open clipping or endovascular coiling. The goal of this study was to create a mathematical model to predict the probability of rupture incorporating the salient biomorphometric characteristics of the aneurysm.

Methods Posterior communicating artery aneurysms confirmed by computed tomography angiography were subjected to three-dimensional reconstruction to ascertain the following biomorphometric parameters: height, width, neck size, aspect ratio, bottle neck factor, aneurysm angle, deflection angle, neck angle, and proximal internal carotid artery- distal internal carotid artery angle. Significant factors related to rupture were determined and a forward stepwise binary logistic regression was performed to establish the log-odds of rupture.

Results A total of 101 aneurysms (80 ruptured and 21 unruptured) were included. Of the six statistically significant biomorphometric parameters measured, aneurysm deflection angle and aspect ratio both were considerably larger ($p=0.001$) in ruptured cases compared to unruptured ones. Binary logistic regression applied to the dataset demonstrated a 96% sensitivity and 89% overall accuracy.

Conclusions This updated binary logistic regression model was able to identify aneurysm rupture more robustly when compared to previous models. Future studies combining patient specific characteristics, along with previously determined biomorphometric parameters may further enhance this model.

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E-239 INTRA-ANEURYSMAL FLOW AFTER TREATMENT WITH THE WOVEN ENDOBRIDGE (WEB) MEASURED BY QUANTITATIVE DIGITAL SUBTRACTION ANGIOGRAPHY

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Introduction The Woven EndoBridge (WEB) is an intra-saccular flow-diverting device that is rapidly becoming popular in the treatment of wide-neck bifurcation aneurysms. However,