devices (Penumbra®, Alameda, CA). Mean fluoroscopy time and dose area product, as well as standard deviations were calculated for each technique and compared using Student's t-test.

Results The fluoroscopy time and dose area product for interventional management of vascular occlusions using suction aspiration and stent retriever devices in a selected group of patients is given in the table.

Abstract E-069 Table 1

Suction aspiration			Stent retriever		
Vessel	Fluoroscopy time (minutes)	Dose area product (mGy-cm^2)	Vessel	Fluoroscopy time (minutes)	Dose area product (mGy-cm^2)
Left M1	18.33	612188	Left M1	17.25	451328
Left M1	25.17	333391	Left M1	9.8	262116
Right M1	6.92	185136	Right M1	12.85	273798
Right M1	31.07	832479	Right M1	13.78	447020
Right M1	21.03	398619	Right M1	8.4	198648
Mean	20.50	472363	**Mean**	12.42	326582
Standard Deviation	8.99	253222	**Standard Deviation**	3.48	115516
P-value (FT)	0.048		**P-value (DAP)**	0.137	

Conclusion Data from this limited subset of patients suggest a statistically significant difference in fluoroscopy time for mechanical thrombectomies performed with stent retrieval versus those performed with suction aspiration. No significant difference was seen in dose area product data.

The difference in fluoroscopy time between the two techniques may reflect operator comfort rather than intrinsic differences between the two techniques. Notably, however, these data were obtained across multiple operators at our institution, so it may be plausible that these differences are generalizable to technique. It is important to again note that these differences in radiation exposure are unlikely to result in clinical effect in an individual patient, but differences in exposure to the operator over a career may be significant. Further exploration with larger patient samples is warranted.

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E-070 ENDOVASCULAR TECHNIQUES FOR ACHIEVEMENT OF BETTER FLOW DIVERTER WALL APPOSITION

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Purpose Flow diverter malapposition as a technical complication with the use of the pipeline embolization device has been described and maybe is associated with delayed ischemic events or potentially delayed life-threatening aneurysm rupture. We describe our endovascular techniques for manipulation of flow diverters in order to achieve proper vessel wall apposition.

Materials and methods We retrospectively analyzed our flow diverter database and included all patients in whom malapposition of the device was detected on follow-up angiography immediately after device deployment. We then evaluated feasibility and technical success of different endovascular approaches aimed to correct the inadequate vessel wall apposition. Successful endovascular techniques for manipulation of the device included use of wires, catheters and additional devices. Final confirmation of flow diverter wall apposition prior to completion of the intervention was performed using 3D multi-planar cone-beam CT reconstruction images.

Results We identified 5 successful endovascular techniques for better flow diverter wall apposition: 1) Use of a wire with a J, pigtail or S-shaped tip passed through the device, 2) Manipulation with a microcatheter, which can be used to press the PED against the vessel wall, 3) Balloon angioplasty of the malapposed segment, 4) Manipulation with an intermediate catheter, which can be used at the proximal edge or within the flow diverter to push the PED against the vessel wall, 5) Placement of another flow diverter within the previously placed FD to better oppose the ends and 6) Placement of an open-cell stent in telescopic fashion across the malapposed portion of the PED (proximal or distal edge). The Neuroform stent with its high outward radial force is an excellent adjunct treatment option to anchor the malapposed flow diverter against the vessel wall while permitting perforator patency.

Conclusion Flow diverter malapposition can be addressed successfully during the interventional procedure using a variety of techniques. This may prevent devastating delayed complications.

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E-071 INITIAL EXPERIMENTAL RESULT OF A NOVEL, LOW PROFILE STENT FOR ANEURYSM TREATMENT

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Introduction Stent assisted coil therapy has been developed for treatment of wide neck aneurysms. However, several reports show that recanalization rate of 10–15% after therapy is still observed. A novel low profile, flow diverter stent has been developed, and initial experience with it in an experimental wide-neck aneurysm swine model is reported.

Method The novel stent is self-expandable with radiopaque markers on both ends and 0.023 inch inner size compatible