

Abstract E-271 Table 1

Variable	Weekday (n=422)	Weekend (n=161)	P-value
Treatment Modality, n (%)			.27
Open	38 (9.0%)	10 (6.2%)	
Endovascular	384 (91.0%)	151 (93.8%)	
Any complication, n (%)	79 (18.7%)	25 (15.5%)	.37
Intra-op Complications, n (%)	10 (2.4%)	3 (1.9%)	.71
Post-op Complications, n (%)	75 (17.8%)	24 (14.9%)	.41
Mortality, n (%)	35 (8.3%)	12 (7.5%)	.74
mRS at discharge, n (%)			.48
0-2	297 (71.7%)	110 (68.8%)	
3-6	117 (28.3%)	50 (31.2%)	
mRS at 30 days, n (%)			.89
0-2	260 (87.2%)	98 (86.7%)	
3-6	38 (12.8%)	15 (13.3%)	
mRS at 90 days, n (%)			1.00
0-2	102 (87.2%)	32 (86.5%)	
3-6	15 (12.8%)	5 (13.5%)	
Raymond-Roy Occlusion at follow up, n (%)			.52
Class I	291 (73.9%)	107 (71.8%)	
Class II	67 (17.0%)	31 (20.8%)	
Class III	36 (9.1%)	11 (7.4%)	
Recurrence, n (%)	84 (21.4%)	31 (20.8%)	.87
Need for Retreatment, n (%)	27 (15.0%)	10 (11.6%)	.46

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### E-272 INFLUENCE OF ANATOMIC LOCATION ON RUPTURED INTRACRANIAL ANEURYSM SIZE

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**Introduction** The stratification of unruptured cerebral aneurysm rupture risk is largely based on 1998 ISUIA trial results which suggest that aneurysm diameters less than 7 mm have a low risk of rupture. The PHASES score, based on a systematic review of six prospective cohort studies with subarachnoid hemorrhage as outcome, evaluates genetic background, age, hypertension, earlier subarachnoid hemorrhage from another aneurysm, and size and location of the aneurysm. The present study aims to determine whether aneurysm size thresholds used in these scales should be calibrated according to the anatomic location of the aneurysm.

**Methods** In this IRB-approved ten-year retrospective cohort study, consecutive adult patients presenting to an urban tertiary care academic comprehensive stroke center with subarachnoid hemorrhage were evaluated for cerebral aneurysm anatomic location and dome diameter. The ruptured aneurysm sizes were organized into groups of 3 mm, > 3 mm and 7 mm, and > 7 mm. Classifications of anatomic location were based on conventional categorization and rupture-likelihood such as anterior and posterior communicating arteries. All calculated group percentages and mean aneurysm sizes were compared to evaluate for a correlation between ruptured aneurysm size and anatomic location.

**Results** From 16 August 2012 and 3 April 2022, 643 of 1040 subarachnoid hemorrhage patients had ruptured aneurysms. Most patients had small aneurysms > 3 mm and 7 mm (55.20%) with a mean size of 5.02 mm or smaller aneurysms 3 mm (26.01%) with a mean size of 2.47 mm. Fewer had large aneurysms > 7 mm (18.79%) with a mean size of 10.26 mm. For all patients, the anatomic distribution varied based on size. Small, ruptured aneurysms defined as 3 mm

(mean: 2.44 mm) or > 3 mm and 7 mm (mean: 4.84 mm) were commonly located at ACOM (27.27% and 58.82%, respectively). Large, ruptured aneurysms > 7 mm (mean: 9.74 mm) were often found at PCOM (23.64%). Aneurysms at the MCA and ICA had roughly equivalent size category distributions. 73.33% of aneurysms at the pericallosal artery and 41.18% at PICA were notably small (2.45 mm and 2.07 mm, respectively) with all remaining aneurysm sizes ranging 7 mm.

**Conclusion** This study shows that the average size of ruptured aneurysms does vary based on its anatomic location, suggesting a more nuanced approach to interpreting the risk of intracranial aneurysm based on size. Smaller aneurysms are more likely to be located at ACOM while large intracranial aneurysms are more likely to be located at PCOM. This may be helpful in calibrating dome size thresholds used to determine future rupture risk and treatment decision-making based on location. This retrospective cohort study is limited in defining a causal relationship between intracranial aneurysm size and location. The observed trend justifies future larger scale studies to more clearly define this correlation.

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### E-273 ADDRESSING THE 'HOOK-IN' PROBLEM IN ACCERO STENT-ASSISTED COIL EMBOLIZATION: UNDERSTANDING CASES, AND SOLUTIONS

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The Accero stent employs platinum-nitinol composite wire technology with a low-profile, visible, and braided structure. The Accero stent-assisted coil embolization is crucial for treating cerebral aneurysms, but concerns about proximal end detachment have emerged. This report delves into the causes, structure, and proposed solutions for the 'hook in' issue during the procedure.

The report aims to provide insights into the Accero stent's structure, analyzing a case involving a 'hook in' problem, and proposing systematic solutions.

In a case involving a 74-year-old woman with a bilobulated aneurysm, a 'hook in' situation occurred during Accero stent-assisted coil embolization, requiring careful maneuvering for successful deployment.

Structural analysis revealed a critical interaction between the transport wire (TW) wings of the crown sleeve and the stent mesh. Proper alignment of the TW within the stent is crucial for stable deployment, with misalignment issues leading to interference during TW removal, causing the 'hook in' problem.

To address the issue, precise positioning of the Accero stent and TW is essential. Proposed steps include verifying stent deployment, confirming central positioning of MC and TW, and carefully addressing misalignments during TW removal.

In conclusion, understanding the intricate connection between the Accero stent and TW wire is crucial for successful embolization. The report emphasizes the need for meticulous attention to device positioning and provides systematic steps to mitigate the 'hook in' problem, contributing valuable insights to enhance the safety and effectiveness of Accero stent-assisted coil embolization procedures.

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