

occlusion was observed in four patients (except in two patients for whom follow-up imaging could not be obtained). **Conclusions** With proper antiplatelet regimens, flow diverter stents can be used safely to successfully treat these complex acute iatrogenic injuries. Early repeated angiogram is needed when immediate post-injury imaging does not discover the point of vessel injury.

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### 0-012 TREATMENT OF LARGE INTRACRANIAL ANEURYSMS USING THE WOVEN ENDOBRIDGE (WEB): A PROPENSITY SCORE-MATCHED ANALYSIS

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**Background** The Woven EndoBridge (WEB) device is primarily used for treating wide-neck intracranial bifurcation aneurysms under 10 mm. Limited data exists on its efficacy for large aneurysms ( $\geq 10$  mm). We aim to assess angiographic and clinical outcomes of the WEB device in treating large versus small aneurysms.

**Methods** We conducted a retrospective review of the World Wide WEB Consortium database, from 2011 to 2022, across 30 academic institutions globally. Propensity score matching (PSM) was employed to compare 1331 small and 220 large aneurysms on baseline characteristics.

**Results** A total of 1551 patients were included. Both groups were similar in age, sex, smoking status, and rupture status. Small aneurysms had higher odds of complete occlusion (2.38 times) and lower odds of retreatment (5.31 times less) than large aneurysms. After PSM, 220 matched pairs showed significantly lower occlusion rates (77.1% vs 86.6%,  $p = 0.0005$ ) and higher retreatment rates (22.2% vs 3.5%,  $p < 0.001$ ) in the large aneurysm group.

**Conclusion** Large aneurysms treated with the WEB device showed lower occlusion and higher retreatment rates than small aneurysms, even after matching for baseline characteristics. These findings may inform treatment decisions and patient counseling.

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### 0-013 TREATMENT MODALITY FOR ANEURYSMAL SUBARACHNOID HEMORRHAGE AND THE RISK OF SHUNT-DEPENDENT HYDROCEPHALUS AND MORTALITY: A POPULATION-BASED STUDY

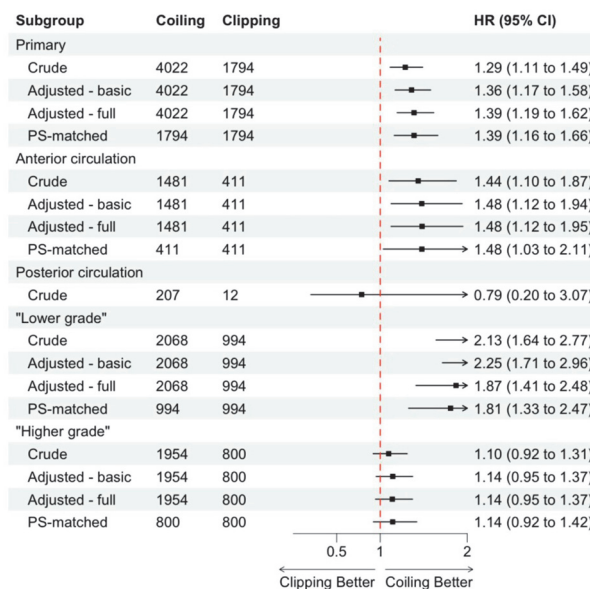
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**Background** Hydrocephalus is a significant contributor to morbidity following aneurysmal subarachnoid hemorrhage (aSAH). We aimed to investigate the association between primary treatment modality and the incidence of hydrocephalus requiring cerebrospinal fluid (CSF) diversion, utilizing a target trial approach for causal inference.

**Methods** This cohort study used U.S. administrative health claims data (Clinformatics Data Mart) and was conducted among aSAH patients undergoing primary treatment with either clipping or coiling from January 1, 2004, to February 28, 2023. The primary outcome was hydrocephalus requiring CSF diversion surgery while the secondary outcome was mortality. Multivariable regression and 1:1 propensity score (PS) matching were employed for confounder control. Crude and adjusted hazard ratios with 95% CIs were calculated.

**Results** A total of 5,816 patients (mean age, 59 years; 72% female) undergoing clipping ( $n=1,794$ ) or coiling ( $n=4,022$ ) were included in the primary cohort. The 1:1 PS-matched cohort had 1,794 participants per arm. Clipping demonstrated



Abstract O-013 Figure 1

higher hazards of shunt-dependent hydrocephalus compared to coiling in both the multivariable Fine-Gray model (HR 1.39, 95%CI: 1.19–1.62) and the PS-matched cohorts (HR 1.39, 95%CI: 1.16–1.66). Mortality analysis favored clipping in the crude analysis (HR 0.78, 95%CI: 0.69–0.88) but leaned toward coiling after confounder adjustment (HR 1.13, 95%CI: 1.00–1.29 in the multivariable model; HR 1.11, 95%CI: 0.95–1.29 in the PS-matched cohort).

**Conclusion** These findings suggest that coiling is associated with reduced hazards of shunt-dependent hydrocephalus following aSAH compared to clipping, and provide valuable insights for shared decision-making among clinicians and patients, in the context of conflicting evidence from smaller observational studies.

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O-014

#### INVESTIGATING THE EFFECT OF BRIDGING THERAPY WITH IV-TPA ON TECHNICAL AND CLINICAL OUTCOMES OF STROKE THROMBECTOMY IN PATIENTS PRESENTING IN EARLY WINDOW

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**Introduction** Acute management of ischemic stroke secondary to large vessel occlusion includes IV-thrombolysis (IVT) followed by endovascular thrombectomy (EVT) for eligible patients. Several randomized trials have failed to show non-inferiority of EVT alone to EVT + IVT in patients arriving within the window for IVT, but did demonstrate higher rates of symptomatic hemorrhage (sICH). These studies focused on patients presenting within window for IVT even if EVT happened at later time. In this study, we investigate the impact of IVT on safety and efficacy outcomes of EVT in patients undergoing EVT within 4.5 h of symptom onset.

**Methods** This is a multicenter retrospective study of patients undergoing EVT for anterior circulation stroke from 46 stroke centers in the United States and globally. Patients 18 years or older were included irrespective of whether IVT was administered. Patients were reviewed for their demographics, admission deficits, and technical outcomes, and were dichotomized to early window ( $\leq 4.5$  h) and late window ( $> 4.5$  h) based on time of arterial puncture. Primary outcome is modified Rankin Score (mRS) at 90 days, secondary outcomes included sICH, embolization to new territory, and successful

recanalization. Logistic regression analysis was used with step-wise backpropagation including baseline variables and technique used to compute adjusted odds ratios (aORs) for IVT on outcome measures.

**Results** Among a total of 10,458 patients were reviewed of which 6516 met criteria for anterior circulation stroke with available follow-up. The mean age was 68 years, and 48% were females. In patients undergoing EVT within 4.5 h of stroke onset, IVT was associated with higher odds of embolization to new territories (aOR= 1.39, 95%CI: 1.08–1.67,  $p < 0.01$ ), higher odds of sICH (aOR=1.5, 95%CI: 1.09–2.1,  $p = 0.012$ ), higher odds of good outcome (aOR=1.3, 95%CI: 1.1–1.6), but no impact on successful recanalization ( $p = 0.512$ ). In patients undergoing EVT after 4.5 h of stroke onset, IVT did not result in higher odds of embolization to new territory or sICH ( $p > 0.1$ ). We then performed a propensity match cohort analysis between patients with IVT use who underwent EVT within 4.5 h versus after 4.5 h. Matching resulted in a cohort of 1378 patients per group with balanced covariates (age, gender, race, comorbidities, baseline mRS, admission NIHSS, ASPECT score, thrombectomy frontline technique, SMD  $< 0.15$ ). Comparing early to late EVT among patients undergoing IVT+EVT, patients in the early window had significantly higher rates of embolization to new territory (OR=1.04,  $p < 0.01$ ) and higher rates of successful recanalization (OR=1.04,  $p < 0.01$ ) compared to late EVT without difference in rates of sICH.

**Conclusion** This retrospective real-world study demonstrates that in patients considered for EVT who are also eligible for IVT at presentation, bridging therapy is still associated with higher rates of good outcome; however, this group is more likely to be complicated by symptomatic hemorrhage and embolization to new territories.

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