O-034 INFLUENCE OF GENERAL ANESTHESIA ON OUTCOMES AFTER ANTERIOR CIRCULATION MECHANICAL THROMBECTOMY: RESULTS FROM THE PROSPECTIVE INTERNATIONAL ASSIST REGISTRY

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Introduction Multiple studies have evaluated whether general anesthesia (GA) improves outcomes after mechanical thrombectomy (MT) with mixed results. In addition, most have not evaluated procedural outcomes such as degree of recanalization and first pass recanalization.

Methods The ASSIST registry, a prospective, global, multicenter registry of patients with anterior circulation large vessel occlusion (LVO) undergoing mechanical thrombectomy was used. Patients with ICA or M1/2 occlusions ≥ 18 years old were included. The variable of interest was type of anesthesia used during MT, which was dichotomized to GA or non-GA (MAC, conscious sedation, and no anesthesia). The outcomes of interest were time from groin puncture to recanalization in patients who achieved eTICI ≥ 2b50 recanalization, final recanalization with eTICI ≥ 2c, first pass recanalization with eTICI ≥ 2c, intraprocedural complications, 90-day favorable outcome (mRS 0–2), sICH, any ICH, and early neurologic deterioration ([END] defined as an increase in NIHSS ≥ 4 points from baseline up to 48 hours after MT. Multivariable regression models were generated for each outcome.

Results A total of 1,477 patients who underwent MT with 38.9% under GA were included. In the multivariable analysis GA was not significantly associated with time from groin puncture to recanalization (p = 0.08) but was significantly associated with greater odds of final recanalization with eTICI ≥ 2c (OR 1.62, 95% CI 1.11 - 2.36 [table 1]). There was no significant difference in the odds of intraprocedural complications for the GA group (OR 0.73, 95% CI 0.28 - 1.92). GA was also not significantly associated with 90-day favo ERMAN rable outcome, sICH, any ICH, END, or first pass recanalization with eTICI ≥ 2c. In a subgroup analysis excluding patients who did not receive any form of sedation, GA was still significantly associated with greater odds of final recanalization with eTICI ≥ 2c (OR 1.65, 95% CI 1.12 - 2.44).

Conclusion GA for anterior circulation MT may be associated with greater odds of eTICI ≥ 2c final recanalization.

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Abstract O-034 Table 1 Regression for final reperfusion with eTICI ≥ 2c

	Odds ratio (95% CI)	P-value
General anesthesia	1.62 (1.11, 2.36)	0.01
Age	1.02 (1.01, 1.02)	0.001
Site of intracranial occlusion		<0.0001*
ICA	Reference	
M1	1.33 (1.11, 1.60)	0.003
M2	0.71 (0.56, 0.90)	0.006
Tandem occlusion	0.83 (0.57, 1.21)	0.33
Intracranial or extracranial sent	0.59 (0.36, 0.98)	0.04
Thrombectomy technique		0.46*
SR Classic	Reference	
SR Combination	0.82 (0.57, 1.18)	0.28
Direct Aspiration	0.79 (0.52, 1.19)	0.25

* Global p-value measuring association of variable as a whole with the outcome

O-035 HIGHER ENDOVASCULAR THROMBECTOMY PROCEDURAL VOLUME IS ASSOCIATED WITH REDUCED INPATIENT MORTALITY

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Objective The aim of this study was to determine the impact of thrombectomy procedure volume on in-hospital mortality in ischemic stroke (IS) patients treated with endovascular thrombectomy (EVT).

Methods We performed a retrospective cohort study using the 2020 Florida State Inpatient Database. We included adult patients who had a diagnosis of IS and underwent EVT during the same admission. The primary study outcome was in-hospital death. We used Youden's Index to define an optimal threshold for number of EVT/year/provider. Based on this cut-point, the cohort was dichotomized into low and high procedural volume EVT providers. We fit logistic regression models to mortality in the full cohort, both as univariate analyses and after adjusting for covariates.

Results Amongst 3,143 IS patients who underwent EVT, 1,907 patients across 59 hospitals and 106 providers met our inclusion criteria. Amongst the 106 providers, the median (interquartile range) number of EVTs performed was 13.5 (7–25). The optimal cut-point was 17 thrombectomy procedures. Demographics and comorbidities were overall similar between

Abstract O-035 Table 1 Association between stroke interventionalist annual volume and risk of in-hospital death

Variables	Low Volume (n=620)	High Volume (n=1,287)	P-Value
Number of EVT cases at facility/year	34.7 ± 20.3	62.0 ± 32.0	<0.001
Intubation (%)	24.7	19.3	0.008
Length of stay (days)	7.8 ± 7.9	8.3 ± 12.8	0.401
In-hospital death (%)	11.0	7.2	0.005

a. Adjusted for age (in tertiles), sex, race, and NIHSS (in tertiles) b. Adjusted for age (in tertiles), sex, race, NIHSS (in tertiles), Elixhauser comorbidity score, lytic therapy, primary payor, and total number of EVT procedures performed at hospital/year (in tertiles).
OR = Odds ratio; EVT = Endovascular therapy