

Major AVM hemorrhages were more frequent in ruptured (HR, 4.4 (2.1–8.9); $P < .001$), large (HR, 2.6 (1.1–6.6); $P = .039$), high-grade (HR, 2.5 (1.2–5.3); $P = .013$) AVMs with deep venous drainage (HR, 2.1 (1.1–4.2); $P = .032$). SAEs occurred in 48/434 (11%) patients (3.6 per 100 patient-years (95%CI: 2.7–4.8)).

Conclusion Nearly half of TOBAS participants were observed. Rates of untoward neurological events were within expected boundaries.

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MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE PERFORMED UNDER MODERATE SEDATION AND WITHOUT CONTINUOUS SALINE FLUSHES IS SAFE AND EFFECTIVE

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Introduction Rapid time to reperfusion is among the most important metrics predictive of good neurologic outcomes among acute ischemic stroke (AIS) patients who undergo mechanical thrombectomy (MT). There is considerable controversy regarding methods to streamline patient preparation for MT while maintaining procedural safety, with wide institutional variation between monitored anesthesia care and routine general anesthesia in efforts to balance time to access and minimize intraprocedural patient motion. Similarly, the use of continuous heparinized saline flushes on all catheters is considered the standard-of-care to minimize iatrogenic embolization but carries preparatory time costs. We present a single institution experience at a high-volume comprehensive stroke center to minimize preparatory time for MT by both eliminating the involvement of anesthesia and the use of continuous heparinized saline flushes.

Materials and Methods We performed a retrospective review of a prospectively maintained single institution stroke database, including consecutive cases between January 1, 2016 and December 31, 2023. All cases were performed under moderate sedation and without continuous heparinized flushes. Inclusion criteria were: Age >18 years, anterior or posterior circulation large vessel occlusion presenting within 24 hours of last-known-well time, premorbid modified Rankin Scale (mRS) <3. Only patients presenting initially to our hospital ED were included to limit transfer-related delays to treatment. Patients requiring intubation upon ED presentation or with incomplete procedural data were excluded. Patient demographics, procedural measures, including time from neurointerventional service notification to arterial puncture (NIR-to-access), time from access-to-reperfusion, and rate of new territorial embolization (NTE), and neurological outcomes were summarized.

Results Among 1700 mechanical thrombectomies performed in the study period, 113 (6.7%) were intubated, 574 (33.8%) had pre-hospital notification, and 437 (25.7%) had unknown or >2 premorbid mRS and were excluded, with 727 (42.8%) cases remaining for analysis. Baseline patient demographics included mean age of 69.7±14.3 years, 46.9% female, mean NIHSS of 15.1±6.5, and 39.4% of patients received IV-TPA. Target thrombi were primarily located at the ICA terminus, M1 or M2 segments (94.5%). The median times from onset-

to-puncture, NIR-to-access, access-to-thrombectomy, and access-to-reperfusion were 259 (IQR 129–630), 41 (IQR 28.0–52.0), 14 (IQR 10.0–20.0), and 21 (IQR 14.0–31.5) minutes, respectively. The mean number of passes was 1.7, with a median of 1 (IQR1–2). Excellent reperfusion (TICI 2c/3) was achieved in 67.4% (TICI 3 in 41.1%). The rate of NTE was 2.6%. At time of discharge, mRS <3 was seen in 71.5% (N=520), but was 43.1% (N=313) at 90-day follow-up.

Conclusions MT performed under moderate sedation and in the absence of continuous saline flushes is a feasible workflow for rapid access times with a profile of safety, procedural

Abstract E-221 Table 1

	Overall (N=727)
Age	
Mean (SD)	69.710 (14.247)
Female	341 (46.9%)
NIHSS	
Mean (SD)	15.048 (6.436)
NCCT ASPECTS	
Mean (SD)	9.152 (1.385)
N-Miss	107
IV TPA	286 (39.4%)
Symptom Onset to Puncture, min	
Mean (SD)	405.232 (338.916)
Median (IQR)	259.000 (129.000, 630.500)
VIR Activation to Puncture, min	
Mean (SD)	40.957 (15.947)
Median	41.000 (28.000, 52.000)
Transradial Access	138 (19.0%)
Target Thrombus Location	
ICA	104 (14.4%)
M1	435 (60.2%)
M2	144 (19.9%)
Basilar	23 (3.2%)
Other	21 (2.9%)
Number of Passes	
Mean (SD)	1.688 (1.026)
Median (IQR)	1 (1–2)
Embolization to New Territory	19 (2.6%)
Final TICI Score	
0	23 (3.2%)
1	3 (0.4%)
2a	23 (3.2%)
2b	188 (25.9%)
2c	191 (26.3%)
3	299 (41.1%)
24 hour NIHSS	
Mean (SD)	7.648 (7.111)
Median (IQR)	5.000 (2.0, 13.0)
N-Miss	222
Discharge NIHSS	
Mean (SD)	5.840 (6.903)
N-Miss	44
Change in NIHSS from Presentation to Discharge	
Mean (SD)	-9.281 (7.648)
N-Miss	48
mRS 0-2 at Discharge	520 (71.5%)
mRS 0-2 at 90 Days	193 (43.1%)
N-Miss	279

parameters, and neurologic outcomes otherwise comparable to published trial standards.

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E-222 DYNAMIC INTERNAL JUGULAR VEIN VENOGRAPHY: A DESCRIPTIVE STUDY IN 89 PATIENTS WITH SUSPECTED CEREBRAL VENOUS OUTFLOW DISORDERS

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Introduction/Purpose Internal jugular vein (IJV) stenosis has recently been recognized as a plausible source of symptom etiology in patients with cerebral venous outflow disorders (CVD). The development of diagnostic and interventional candidacy criteria remain difficult due to a poor understanding of IJV physiology and positional symptom exacerbation often reported by these patients.

Materials and Methods A retrospective, single-center chart review was conducted on adult patients who underwent diagnostic cerebral venography with rotational IJ venography from 2022 to 2024. Patients were divided into three groups for further analysis based on symptoms and diagnostic criteria:

presumed jugular stenosis, near-healthy venous outflow, and idiopathic intracranial hypertension (IIH).

Results 89 patients being evaluated for CVD underwent rotational IJV venography and were included in this study. Most commonly, ipsilateral rotation resulted in ipsilateral IJV stenosis and gradient development at C4–6 and contralateral stenosis and gradient appearance in the contralateral IJV at C1, with stenosis and gradient development in bilateral IJVs at C1–3 bilaterally during chin flexion. In all patients, 93.3% developed at least moderate dynamic stenosis of at least one IJV. 69.7% developed either severe or occlusive stenosis during both rightward and leftward rotation, and 81.8% developed severe or occlusive stenosis with head flexion. Dynamic gradients of at least 4 mmHg were seen in 68.5%, with gradients of at least 8 mmHg in 31.5% and at least 10 mmHg in 12.4%.

Conclusion This study is the first to document dynamic changes in IJV caliber and gradients in different head positions, offering insights into the complex nature of venous outflow and its impact on CVD.

*Will include both Figure 1, Figure 2, and table 1 from the manuscript.

Figure 1. Stenosis and mean gradient formation observed with neutral and flexed positions. Visually displays the percentage of patients with each degree of stenosis severity observed across all cervical levels within each group. Gradients listed are the mean gradients observed across the corresponding cervical levels within each group.

Abstract E-222 Table 1 Significant stenoses and gradient formation across all positions and groups

Position	Stenosis Location (Gradient Measured in mmHg)	% Moderate Stenoses (Mean Trans-Stenosis Gradient)	% Severe Stenoses (Mean Trans-Stenosis Gradient)	% Occlusive Stenoses (Mean Trans-Stenosis Gradient)
All Patients				
Neutral – Right IJV	C1 (C1–4)	18.4% (0.6)	17.2% (1.9)	2.3% (2.0)
Neutral – Left IJV	C1 (C1–4)	26.4% (0.7)	21.8% (1.7)	4.6% (2.3)
Ipsilateral Rotation – Right IJV	C4–7 (C4–6, C6–7)	2.5% (3.0)	17.5% (4.5)	23.8% (5.9)
Contralateral Rotation – Right IJV	C1 (C1–4)	21.3% (1.9)	27.5% (3.6)	6.3% (7.0)
Flexion – Right IJV	C1–3 (C1–4)	23.3% (1.4)	33.3% (5.6)	33.3% (6.8)
Group 1				
Neutral – Right IJV	C1 (C1–4)	16.7% (0.4)	20.0% (2.3)	6.7% (2.0)
Neutral – Left IJV	C1 (C1–4)	22.6% (1.3)	35.5% (1.9)	3.2% (0.0)
Ipsilateral Rotation – Right IJV	C4–7 (C4–6, C6–7)	7.4% (4.0, 3.0)	29.6% (5.3, 5.0)	37.0% (C4–6 4.3, C6–7 6.0)
Contralateral Rotation – Right IJV	C1 (C1–4)	17.9% (1.6)	32.1% (4.0)	7.1% (5.0)
Flexion – Right IJV	C1–3 (C1–4)	20% (3.0)	20% (11.0)	40% (7.5)
Group 2				
Neutral – Right IJV	C1 (C1–4)	9.1% (0.0)	9.1% (1.0)	0%
Neutral – Left IJV	C1 (C1–4)	27.3% (0.3)	0%	0%
Ipsilateral Rotation – Right IJV	C4–7 (C4–6, C6–7)	11.1% (2.0)	11.1% (2.0)	0%
Contralateral Rotation – Right IJV	C1 (C1–4)	22.2% (0.0)	22.2% (0.5)	0%
Flexion – Right IJV	C1–3 (C1–4)	100% (0.0)	0%	0%
Group 3				
Neutral – Right IJV	C1 (C1–4)	40% (1.0)	10% (2.0)	0%
Neutral – Left IJV	C1 (C1–4)	30% (0.0)	10% (1.0)	0%
Ipsilateral Rotation – Right IJV	C4–7 (C4–6, C6–7)	0%	22.2% (3.0)	22.2% (7.5)
Contralateral Rotation – Right IJV	C1 (C1–4)	22.2% (2.0)	11.1% (5.0)	0%
Flexion – Right IJV	C1–3 (C1–4)	25% (2.0)	0%	37.5% (13.0)

Rotational measurements taken in the Left IJV were similar to the Right IJV data listed above.