intracranial aneurysms is overall more prevalent following the results of several randomized trials, but surgery continues to play an important role in management of some subsets of aneurysms. Here, we describe the clinical outcomes of coiling vs clipping for ruptured intracranial aneurysms utilizing a national database.

Methods We utilized the TriNetX Analytics Network to query 2,740 cases up to March 27th, 2021. We identified patients >18 years old who underwent coiling or clipping for the treatment of ruptured intracranial aneurysm using ICD-10 codes of I60.1, I60.2, I60.3, I60.6, and I60.7. Patient demographics, baseline characteristics, comorbidities, and clinical outcomes were evaluated within 1-year postoperatively. Mortality and adverse outcome analyses were performed after propensity score matching to control for baseline characteristics and comorbidities between the two cohorts. A combined pooled and individual analyses of the above ICDs were conducted to investigate the differences in clinical outcomes due to the aneurysm's location.

Results The coiling cohort consisted of 2011 patients with mean age 56.8 ± 13.9 and 30.9% male and the clipping cohort consisted of 729 patients with mean age 54.1 ± 13.4 and 28.4% male. After propensity matching for baseline characteristics and comorbidities, a total of 666 patients were included in each cohort. The incidence of surgical/medical complications, ICU, and vasospasm, were significantly lower in the coiling cohort (p-value= 0.008, 0.03, 0.03) compared to the clipping cohort within 1-year postoperatively using the combined ICD codes. There was no significant difference in 1-year-mortality between the two cohorts. Additionally, individual ICD code analysis revealed that coiling of anterior communicating artery (ACoA) aneurysm was associated with significantly less surgical/medical complications and hydrocephalus (p-value= 0.0008, 0.015), and coiling of posterior communicating artery (PCoA) aneurysms was associated with significantly less vasospasm treatment (p-value=0.034) as compared to the respective clipping cohort. There was no significant difference in 1-year-mortality between the two cohorts by location of the aneurysm using individual ICDs.

Conclusion This national database analysis of 1,332 propensity-matched patients undergoing coiling or clipping after a ruptured intracranial aneurysm provides evidence that 1-year clinical outcomes, including surgical/medical complication, and vasospasm, favored coiling. In particular, ACoA-coiled patients had significantly less hydrocephalus, and PCoA-coiled patients had significantly lower vasospasm treatment within 1-year as compared to clipping.

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Background Unruptured intracranial aneurysms are a relatively common disease entity with a relatively uncommon,

yet potentially devastating, risk of rupture. Over the past three decades, the safety of neurointerventional techniques for the treatment of intracranial aneurysms has greatly improved and allow for rapid post-operative recovery. Despite this, neurointerventional treatments remain almost exclusively inpatient procedures. The purpose of this study is to assess the short-term safety profile of electively treated intracranial aneurysms in healthy patients as part of a feasibility study for the ambulatory treatment of intracranial aneurysms.

Methods A retrospective analysis was performed on 200 sequential healthy adult patients with intracranial aneurysms treated via neurointerventional techniques in an elective fashion at a tertiary care center. Healthy adults were classified as having a CCI ≤ 4 and mRS ≤ 1. Patients with non-saccular aneurysm (e.g. fusiform, dissecting), posterior circulation aneurysms, and/or multiple aneurysms treated in the same setting were excluded from analysis. A descriptive analysis was then performed on outcome measures, including, intraoperative complications, 48-hour post-op clinical event, length of stay, and 30-day mRS.

Results A total of 176 patients were included in the analysis with an average age of 52 years and an average CCI of 1.6. Aneurysm location included 116 ICA aneurysms (65.9%), 24 ACA aneurysms (13.6%), 21 MCA aneurysms (11.9%), and 15 PCoA aneurysms (8.5%). Neurointerventional techniques included primary coil (n=37, 21.0%), stent-coil (n=38, 21.6%), intravascular flow diversion (n=96, 54.5%), and intrasaccular flow diversion (n=5, 2.8%). 4 patients (2.3%) experienced intraoperative complications. 14 patients (8.0%) experienced a clinical event in the 48-hour post-operative period, with 9 (5.1%) of these being clinically significant. The most common clinically significant event was a groin hematoma (n=3). The highest proportion of clinically significant events occurred in the stent-coil group (4/38; 10.5%). The average length of hospital stay was 1.7 days. At 30-day follow-up only 1 patient (0.6%) had a documented mRS higher than prior to intervention.

Conclusions The neurointerventional treatment of unruptured intracranial aneurysms in healthy patients is associated with a low risk of peri-operative and short-term complication. These results suggest that with properly selected patients, the neurointerventional treatment of intracranial aneurysms may be feasible in the ambulatory setting and further prospective analysis is recommended.

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Background and Purpose Previous studies on racial disparity in mechanical thrombectomy (MT) treatment of acute large vessel occlusion (LVO) stroke lacked individual patient data

that influences treatment decision-making. We assessed patient-level data in a large United States healthcare system from 2016-2020 for racial disparities in MT utilization and eligibility.

Methods The following variables were extracted for all stroke patients presenting to 42 hospitals in 12 states between January 1, 2016-September 30, 2020: age, gender, race, median income and population density of residential zip code, stroke certification of presenting hospital, baseline ambulatory status, and NIH stroke scale. Multivariate logistic regression was used to analyze associations between each characteristic and the following dependent variables: (1) overall rate of treatment with MT; (2) proportion of patients arriving to the hospital within 5 hours of last known well ('early arrival'); (3) proportion of early arrival patients with documented anterior circulation LVO (aLVO; ICA terminus, M1 or M2 occlusion); (4) rate of MT among early-arrival patients with documented aLVO.

Results The cohort included 34,596 patients: 26,640 White, non-Hispanic ('White'; 77.0%) and 7,956 African American or Black ('Black'; 23.0%). Black patients were less likely to undergo MT (aOR, 0.72; 95% CI 0.61-0.84; table 1), arrive within 5 hours of LKW (aOR, 0.73; 95% CI 0.68-0.78; table 2) and have documented aLVO (aOR, 0.70; 95% CI 0.58-0.84; table 3). Race was not associated MT among early arrival patients with documented aLVO (table 4).

Abstract O-010 Table 1 Overall MT rates

Characteristic	N	MT-treated No. (%)	P-value univariate	Adjusted OR(95% CI)	P-value multivariate
Age, years					
Age<80	23,549	817 (3.5)	Reference		
Age≥80	11,047	373 (3.4)	0.66		
Gender					
Male	16,669	560 (3.4)	Reference		
Female	17,927	630 (3.5)	0.43		
Race/ethnicity					
White, Non-Hispanic	26,640	957 (3.6)	Reference		
Black/African American	7,956	233 (2.9)	<0.01	0.72 (0.61-0.84)	<0.01
Residential Zip Code, Median Income					
>$50,000	10,573	331 (3.1)	Reference		
<$50,000	24,023	859 (3.6)	0.04	1.04 (0.90-1.20)	0.59
Residential Zip Code Population Density					
Urban	8,064	281 (3.5)	Reference		
Non-Urban	26,532	909 (3.4)	0.80		
Presenting Hospital Certification					
Comprehensive/ Thrombectomy-Capable	20,329	961 (4.7)	Reference		
Primary	14,267	229 (1.6)	<0.01	0.36 (0.26-0.49)	<0.01
Baseline Ambulation					
Independent	27,769	1,073 (3.9)	Reference		
with Assistance	1,910	40 (2.1)	<0.01	13.82 (11.73-16.39)	<0.01
Stroke Severity					
NIHSS≤5	23,067	172 (0.75)	Reference		
NIHSS>5	11,529	1,018 (8.8)	<0.01	2.47 (2.12-2.89)	<0.01

Abstract O-010 Table 2 Proportions of patients arriving within 5 hrs of LKW

Characteristic	N	Early Arrival No. (%)	P-value univariate	Adjusted OR(95% CI)	P-value multivariate
Age, years					
Age<80	23,549	7,627 (32.4)	Reference		
Age≥80	11,047	3,848 (34.8)	<0.01	1.02 (0.97-1.08)	0.45
Gender					
Male	16,669	5,546 (33.3)	Reference		
Female	17,927	5,929 (33.1)	0.70		
Race/ethnicity					
White, Non-Hispanic	26,640	9,289 (34.9)	Reference		
Black/African American	7,956	2,186 (27.5)	<0.01	0.73 (0.68-0.78)	<0.01
Residential Zip Code, Median Income					
>$50,000	10,573	3,651 (34.5)	Reference		
<$50,000	24,023	7,824 (32.6)	<0.01	0.94 (0.89-0.99)	0.03
Residential Zip Code Population Density					
Urban	8,064	2,506 (31.1)	Reference		
Non-Urban	26,532	8,969 (33.8)	<0.01	1.02 (0.96-1.09)	0.45
Presenting Hospital Stroke Certification					
Comprehensive/ Thrombectomy-Capable	20,329	6,770 (33.3)	Reference		
Primary	14,267	4,705 (33.0)	0.53		
Baseline Ambulation					
Independent	27,769	9,504 (34.2)	Reference		
with Assistance	1,910	589 (30.8)	<0.01	0.78 (0.70-0.86)	<0.01
Stroke Severity					
NIHSS≤5	23,067	6,971 (30.2)	Reference		
NIHSS>5	11,529	4,504 (39.1)	<0.01	1.57 (1.49-1.65)	<0.01

Abstract O-010 Table 3 Proportions of documented LVO among patients arriving within 5 hrs of LKW

Characteristic	N	Anterior LVO No. (%)	P-value univariate	Adjusted OR(95% CI)	P-value multivariate
Age, years					
Age<80	7,627	698 (9.2)	Reference		
Age≥80	3,848	414 (10.8)	<0.01	0.85 (0.74-0.99)	0.03
Gender					
Male	5,546	478 (8.6)	Reference		
Female	5,929	634 (10.7)	<0.01	1.07 (0.94-1.22)	0.31
Race/ethnicity					
White, Non-Hispanic	9,289	924 (9.9)	Reference		
Black/African American	2,186	188 (8.6)	0.055	0.70 (0.58-0.84)	<0.01
Residential Zip Code, Median Income					
>$50,000	3,651	306 (8.4)	Reference		
<$50,000	7,824	806 (10.3)	<0.01	1.06 (0.92-1.23)	0.43
Residential Zip Code Population Density					
Urban	2,506	262 (10.5)	Reference		
Non-Urban	8,969	850 (9.5)	0.14	1.00 (0.85-1.18)	0.95
Presenting Hospital Stroke Certification					
Comprehensive/ Thrombectomy-Capable	6,770	906 (13.4)	Reference		
Primary	4,705	206 (4.4)	<0.01	0.32 (0.27-0.38)	<0.01
Baseline Ambulation					
Independent	9,504	976 (10.3)	Reference		
with Assistance	589	38 (6.5)	<0.01	0.42 (0.30-0.57)	<0.01
Stroke Severity					
NIHSS≤5	6,971	181 (2.6)	Reference		
NIHSS>5	4,504	931 (20.7)	<0.01	6.81 (5.89-7.88)	<0.01

Abstract O-010 Table 4 MT rates among early arrival patients with a LVO

Characteristic	N	MT-treated No. (%)	P-value univariate	Adjusted OR(95% CI)	P-value multivariate
Age, years					
Age<80	698	476 (68.2)	Reference		
Age≥80	414	250 (60.4)	<0.01	0.71 (0.53-0.95)	0.02
Gender					
Male	478	318 (66.5)	Reference		
Female	634	408 (64.4)	0.45		
Race/ethnicity					
White, Non-Hispanic	924	602 (65.2)	Reference		
Black/African American	188	124 (66.0)	0.83		
Residential Zip Code, Median Income					
>$50,000	306	204 (66.7)	Reference		
<$50,000	806	522 (64.8)	0.55		
Residential Zip Code Population Density					
Urban	262	158 (60.3)	Reference		
Non-Urban	850	568 (66.8)	0.05	1.47 (1.07-2.02)	0.02
Presenting Hospital Stroke Certification					
Comprehensive/ Thrombectomy-Capable	906	594 (65.6)	Reference		
Primary	206	132 (64.1)	0.69		
Baseline Ambulation					
Independent	976	666 (68.2)	Reference		
with Assistance	38	22 (57.9)	0.18	0.56 (0.28-1.11)	0.09
Stroke Severity					
NIHSS≤5	181	70 (38.7)	Reference		
NIHSS>5	931	656 (70.5)	<0.01	4.81 (3.41-6.83)	<0.01

Conclusions Black stroke patients underwent MT less frequently than Whites, likely in part due to longer times from LKW to hospital arrival and a lower rate of documented aLVO. Further studies are needed to assess whether extending the MT time window and more aggressive LVO screening protocols mitigate this disparity.

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O-011 | **OUTCOMES OF MECHANICAL THROMBECTOMY IN STROKE PATIENTS PRESENTING WITH LOW ASPECTS IN THE EARLY AND LATE WINDOW-INSIGHT FROM STAR**

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