

Alarming Downtrend In Mechanical Thrombectomy Rates In African American Patients During COVID-19 Pandemic- Insights from STAR

Supplementary Appendix

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Supplementary Tables:

Table I: Characteristics, procedural metrics, and outcomes of all stroke patients undergoing mechanical thrombectomy during the study period (January 2017 to May 2020).

	All mechanical thrombectomy patients during study period (n=2083)
Age, median (IQR)	69 (58-79)
Females, n (%)	1014 (48.7%)
Admission NIHSS, median (IQR)	16 (10-21)
IV-tPA, n (%)	937 (45%)
ASPECTS, median (IQR)[§]	9 (7-10)
Posterior circulation occlusion, n (%)	216 (10.4%)
Symptom-onset to groin in minutes, median (IQR)	292 (180-575)
Number of passes, median (IQR)	2 (1-3)
mTICI₁≥2b, n (%)	1784 (85.6%)
Procedure duration in minutes, median (IQR)	38 (21-64)
Procedure complications, n (%)	183 (8.8%)
sICH, n (%)	123 (5.9%)
Length of stay in days, median (IQR)	4 (2-6)
DC mRS, median (IQR)	3 (2-5)
Functional independence on discharge (mRS 0-2), n (%)	714 (34.3%)
In-hospital mortality, n (%)	247 (11.9%)

[§]Only for patients with anterior circulation occlusion

[†]Calculated using chi-square test (or Fisher exact test for cells<5) for categorical variables and Mann-Whitney U test for the continuous variables.

Abbreviations: ASPECTS: Alberta Stroke Program Early CT score, COVID: coronavirus disease of 2019, IQR: interquartile range, IV-tPA: intravenous tissue plasminogen activator, LKN: last known normal, mRS: modified Rankin scale, mTICI: modified Thrombolysis in Cerebral Infarction, NIHSS: National Institute of Health stroke scale, sICH: symptomatic intracerebral hematoma.

Table II: Characteristics, procedural metrics, and outcomes of patients receiving mechanical thrombectomy before COVID-19 pandemic.

	African American patients (n=609)	Non-African American patients (n=1239)	P-value[†]
Age, median (IQR)	63 (54-74)	71 (61-81)	<0.001
Females, n (%)	305 (50.1%)	596 (48.1%)	0.424
Admission NIHSS, median (IQR)	16 (10-20)	16 (10-21)	0.821
IV-tPA, n (%)	285 (46.8%)	546 (44.1%)	0.267
ASPECTS, median (IQR)[§]	9 (7-10)	9 (7-10)	0.14
Posterior circulation occlusion, n (%)	72 (11.8%)	123 (9.9%)	0.213
Symptom-onset to groin in minutes, median (IQR)	275 (175-557)	292 (178-589)	0.222
Number of passes, median (IQR)	1 (1-3)	2 (1-3)	0.049
mTICI_{2b}, n (%)	520 (85.4%)	1068 (86.2%)	0.637
Procedure duration in minutes, median (IQR)	39 (23-64)	37 (20-63)	0.09
Procedure complications, n (%)	56 (6.2%)	107 (8.6%)	0.69
sICH, n (%)	34 (5.6%)	74 (6%)	0.737
Length of stay in days, median (IQR)	3 (2-5)	4 (2-6)	0.001
DC mRS, median (IQR)	3 (2-4)	4 (2-5)	0.015
Functional independence on discharge (mRS 0-2), n (%)	226 (37.1%)	401 (32.4%)	0.043
In-hospital mortality, n (%)	45 (7.4%)	158 (12.8%)	<0.001

[§]Only for patients with anterior circulation occlusion

[†]Calculated using chi-square test for categorical variables and Mann-Whitney U test for the continuous variables.

Abbreviations: ASPECTS: Alberta Stroke Program Early CT score, COVID: coronavirus disease of 2019, IQR: interquartile range, IV-tPA: intravenous tissue plasminogen

activator, LKN: last known normal, mRS: modified Rankin scale, mTICI: modified Thrombolysis in Cerebral Infarction, NIHSS: National Institute of Health stroke scale, sICH: symptomatic intracerebral hematoma

Table III: Characteristics, procedural metrics, and outcomes of patients receiving mechanical thrombectomy during COVID-19 pandemic.

	African American patients (n=56)	Non-African American patients (n=179)	P-value[†]
Age, median (IQR)	67 (57-74)	73 (62-80)	0.011
Females, n (%)	24 (48.2%)	86 (48%)	0.982
Admission NIHSS, median (IQR)	17 (10-23)	15 (10-20)	0.293
IV-tPA, n (%)	25 (44.6%)	81 (45.3%)	0.936
ASPECTS, median (IQR)[§]	9 (6-10)	9 (7-10)	0.84
Posterior circulation occlusion, n (%)	3 (5.4%)	18 (10.1%)	0.282
Symptom-onset to groin in minutes, median (IQR)	362 (205-495)	336 (201-597)	0.636
Number of passes, median (IQR)	1 (1-3)	2 (1-3)	0.033
mTICI_{2b}, n (%)	47 (83.9%)	149 (83.2%)	0.904
Procedure duration in minutes, median (IQR)	36 (23-64)	47 (26-76)	0.019
Procedure complications, n (%)	6 (10.7%)	14 (7.8%)	0.498
sICH, n (%)	4 (7.1%)	11 (6.1%)	0.79
Length of stay in days, median (IQR)	6 (4-12)	5 (3-9)	0.114
DC mRS, median (IQR)	4 (2-4)	4 (2-5)	0.884
Functional independence on discharge (mRS 0-2), n (%)	24 (42.9%)	61 (34.1%)	0.233
In-hospital mortality, n (%)	8 (14.3%)	36 (20.1%)	0.329

[§]Only for patients with anterior circulation occlusion

[†]Calculated using chi-square test (or Fisher exact test for cells<5) for categorical variables and Mann-Whitney U test for the continuous variables.

Abbreviations: ASPECTS: Alberta Stroke Program Early CT score, COVID: coronavirus disease of 2019, IQR: interquartile range, IV-tPA: intravenous tissue plasminogen

activator, LKN: last known normal, mRS: modified Rankin scale, mTICI: modified Thrombolysis in Cerebral Infarction, NIHSS: National Institute of Health stroke scale, sICH: symptomatic intracerebral hematoma.