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

Supplementary Appendix

Table of Contents:

Supplementary table I Page 2
Supplementary table II Page 3
Supplementary table III Page 5
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).

| Characteristic                                           | 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)                                                          |
| mTICI≥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.
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.