subarachnoid hemorrhage and its impact on outcomes of patients with acute stroke undergoing mechanical thrombectomy.

Methods A single-center, retrospective analysis from a prospectively collected database was performed between January 2016 and August 2021. Inclusion criteria included all consecutive patients who underwent thrombectomy, regardless of the preferred approach (aspiration-only, stent-retriever, or both) and adjunct intraarterial medication use. Patients were excluded if no LVO was encountered during the angiogram. Our primary objective was to evaluate periprocedural factors involving mechanical thrombectomy that led to the presentation of a subarachnoid hemorrhage within 24 hours after the intervention. Secondary objectives included evaluation of differences in care, by examining the length of hospital stay and discrepancies in discharge treatments.

Results From a universe of nine-hundred and forty-two subjects, 781 patients met the inclusion criteria for the study. Forty-four patients (5.63%) demonstrated purely subarachnoid hemorrhage, of whom, 56.8% were female (n=25), and the median age was 68 [56.25–81.25]. NIHSS baseline in the SAH group was 14 [7–22], additionally, favorable baseline mRS (0–2) was present in 40 patients (93%), compared to 87.4% in the control group. Results of the univariate analysis revealed that tandem occlusion (n = 7; 15.9%; p = .003), aspiration using Penumbra pump system (n = 35; 81.4%; p = .047), and intraoperative complications (n = 4; 9.1%; p < .001) were associated with subarachnoid hemorrhage after mechanical thrombectomy. There was a significant statistical difference between the groups on median puncture-to-recanalization time (45 [33–50] vs. 29 [21–54], p=.042) and number of passes (3 [2–3] vs. 1 [1–3], p=.002). There was no difference between the groups on functional outcomes (26.6% vs 14%). Mean discharge NIHSS was slightly higher in the SAH group (3 vs 2.5; p = .037); however, this difference was not clinical or statistically significant in long-term follow-up. To determine which variables were independently associated with postprocedural SAH, logistic regression was performed, and tandem occlusion (p = .042 95% C.I. 1.037 – 6.960), in addition to intraoperative complications (p = .001 95% C.I. 2.444 – 35.113) were independently associated with the occurrence of a subarachnoid hemorrhage and, respectively.

Conclusion Subarachnoid hyperdensity in head CT scans within the first 24 hours after mechanical thrombectomy is relatively atypical. The issue arises in discriminating between pure contrast stagnation and other bleeding types to conduct a more specific treatment for patients with such complications, even though SAH post-thrombectomy carries a favorable prognosis.

Disclosures V. Benalia: None. G. Cortez: None. A. Aghaebrahim: None. E. Sauvageau: None. R. Hanel: None.

Abstract P-026 Figure 1