Technical Aspects and Standards of Practice in ELVO Management

- 1. Successful mechanical thrombectomy as defined by TICI grade 2b/3 reperfusion should be an angiographic goal to be achieved expeditiously and safely (ASA Class I; Level of Evidence B-R).
- 2. In agreement with AHA Guidelines, patients who meet the criteria for on-label use of IV tPA should receive IV tPA irrespective of whether endovascular treatments are being considered (ASA Class I; Level of Evidence A).
- 3. Endovascular therapy with stent retrievers is recommended over IA fibrinolysis as first-line therapy (ASA Class I; Level of Evidence C-EO).
- 4. IA fibrinolysis has been demonstrated to be of benefit in carefully selected patients with major ischemic strokes of less than 6 hours duration secondary to MCA occlusion (ASA Class I; Level of Evidence B-R). In those who have contraindications to intravenous r-tPA, however, the consequences are not well-studied and caution is recommended (ASA Class IIb; Level of Evidence C-EO).
- 5. The choice of anesthetic technique during endovascular therapy should be individualized on the basis of anesthesia availability, patient risk factors, tolerance of the procedure, and other clinical characteristics. The superiority of conscious sedation over general anesthesia remains unclear. (ASA Class IIb; Level of Evidence C-LD).
- 6. Therefore, while transfemoral access remains the most widely-used method, alternate routes including transradial, transbrachial, and direct carotid puncture are technically feasible and should be employed if necessary to obtain recanalization (ASA Class IIb; Level of Evidence B-NR).
- 7. Current evidence suggests that the use of balloon guide catheters is safe, effective, and may result in faster procedure times when used with distal-access/aspiration catheters and stent retrievers (ASA Class IIa; Level of Evidence C-LD).
- 8. In comparing currently available techniques, the superiority of stent retrievers versus thromboaspiration alone, versus combinational techniques has not been clearly established. Given published evidence, individualized choice of technique should optimize speed, high extent of recanalization, and safety (ASA Class IIa; Level of Evidence B-NR).
- 9. Angioplasty and stenting of proximal cervical atherosclerotic stenosis or complete occlusion at the time of thrombectomy may be considered, but the clinical utility is as yet not well established (AHA Class IIb; Level of Evidence C-LD).

REFERENCE LINK:

Gandhi CD et al. "Neuroendovascular management of emergent large vessel occlusion: update on the technical aspects and standards of practice by the Standards and Guidelines Committee of the Society of NeuroInterventional Surgery," *J Neurointerv Surg.* 2018 Jan 11. Online First.

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