Poor natural history of large vessel acute ischemic stroke underscores the need for mechanical thrombectomy:

Natural History FIRST Stroke Study Interim Results

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Background

Limited information is available on the natural history of the mechanical thrombectomy-eligible stroke cohort. Therefore, FIRST aims to collect real-world data in an appropriate population.

Methods

The FIRST Trial is a prospective natural history study of a stroke cohort eligible for but untreated by endovascular therapy presenting with a large vessel occlusion and ineligible or unresponsive to IV rtPA. The primary endpoint is 90-day mRS 0-2.

Results

Sixty-two patients met analysis criteria. Mean age was 68; median NIHSS score was 18. Occlusions were in the ICA (31%), MCA (66%) and other (3%). The admission TIMI 0-1 rate was 100% and TICI 0-1 was 98%, in which 10% and 12.5% spontaneously recanalized. Good 90-day outcome was achieved in 21%; 42% died, 34% had SAEs and 52% were IV rtPA-refractory. Compared to PROACT II, the primary event rate was 18. Occlusions were in the ICA (31%), MCA (66%) and other (3%). The admission TIMI 0-1 rate was 100% and TICI 0-1 was 98%, in which 10% and 12.5% spontaneously recanalized. Good 90-day outcome was achieved in 21%; 42% died, 34% had SAEs and 52% were IV rtPA-refractory. Compared to PROACT II, the primary event rate was 18.

Conclusion

If untreated, 78% of patients with large vessel acute ischemic stroke will die or suffer long-term disabilities. Results suggest FIRST data could provide a benchmark for future thrombectomy trials.