

Introduction

Long-term skilled nursing facility residents tend to have multiple medical comorbidities and typically require assistance with routine activities of daily living. Mechanical thrombectomy (MT) clinical trials have previously excluded patients with compromised baseline functional status (mRS >2), including SNF residents. To study this underrepresented population, we examine outcomes following mechanical thrombectomy.

Methods

Between July 2014 and August 2017, 243 patients underwent MT at our facility. Of these, 27 were long term SNF residents. Demographics, risk factors, treatment modalities, imaging and clinical outcomes were abstracted from a prospectively maintained database. Favorable outcome is defined as either an improvement or return to baseline functional status, assessed by mRS at 90 days.

Results

Of the 27 SNF patients, 17 (63%) were female. The median age of this cohort was 84 (IQR 79-89) and the median baseline mRS was 4 (IQR 3-4). Successful TIC1 2b/3 recanalization was achieved in 92.6% (25/27). There were 5 (23.8%) patients with hemorrhagic transformation and 1 (3.7%) developed symptomatic parenchymal hemorrhage. Overall, 7 patients (25.9%) had either improved by 1 point decrement in baseline mRS (N=3) or returned to baseline functional status (N=4). Another 10 (37%) were dead at 90 days. Higher baseline ASPECT score was a predictor of favorable outcome.

Table 1. Demographic and Clinical Characteristics of the Patients (N=27)

Characteristic	
Median Age—years (Interquartile Range)	84 (79-89)
Female Sex N(%)	17 (63)
Medical History N(%)	
Hypertension	20 (74)
Diabetes Mellitus	6 (22.2)
Atrial Fibrillation	19 (70.4)
Coronary Artery Disease	13 (48.1)
≥2 Comorbidities	21 (77.8)
Intravenous t-PA N(%)	11 (40.7)
Site of Intracranial-Artery Occlusion N(%)	
ICA T	10 (37)
MCA	17 (63.0)
Median Treatment Time—min	
Stroke Onset to Groin Puncture	277
Stroke Onset to Recanalization	310
TICI 2b/3 Recanalization N(%)	25 (92.6)

Table 2. Clinical Outcomes (N=27)

Characteristic	
Median Baseline Modified Rankin Score (mRS)	4 (3-4)
Favorable Outcome (Improvement or Return to Baseline mRS) N(%)	7 (25.9)
Complications N(%)	
Hemorrhagic Transformation	5 (23.8)
Symptomatic Parenchymal Hemorrhage	1 (3.7)
Death at 90 Days	10 (37)

Conclusions

Advanced age and premorbid baseline disability are established predictors of poor outcome in stroke patients. However, redefining favorable outcome to include return to baseline functioning demonstrates that up to one-fourth of patients in this population may benefit from MT.

Learning Objectives

To report outcomes of skilled nursing facility (SNF) residents with baseline moderate to severe disability who undergo mechanical thrombectomy (MT) for acute ischemic stroke (AIS).