Should you treat your elderly, demented and dependent grandmother?

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Abstract

**Background:** Elderly patients – ≥80 years old – with acute ischaemic stroke (AIS) are frequently excluded from reperfusion therapy. Pre-existing dementia and disability – modified-Rankin-scale (mRS) ≥2, while not absolute contraindications, are outcome predictors often considered in the decision-making process.

**Case report:** A 85-year-old demented woman with a mRS score of 3, presented with acute onset global aphasia, head and conjugate eye deviation to the left, right homonymous hemianopia and right hemiparesis, scoring 23 points in the National Institutes of Health Stroke Scale (NIHSS). The emergent brain computed tomography (CT) failed to reveal early ischaemic signs, and the CT angiography uncovered a left internal carotid artery T-occlusion. Intravenous fibrinolysis (alteplase, 0.9mg/kg) was started at 139 minutes from symptom onset. An angiography was then performed, confirming a left T-occlusion, and a mechanical thrombectomy (MT) was performed, achieving total recanalization. Follow-up brain magnetic resonance imaging 24 hours after treatment revealed a recent ischaemic infarction of the left lenticulo-capsulo-caudate and corona radiata areas. Sustained clinical improvement was attained and, at the 3-month follow-up consultation, she had recovered from her motor deficits being able to walk, but kept meaningful language compromise and scored a mRS 3.

**Conclusion:** We report a case of AIS in an elderly demented woman with a baseline mRS score 3, successfully treated with fibrinolysis and MT. Such examples support current beliefs that neither age, nor cognitive impairment or pre-existing disability alone or coexisting should be considered exclusion criteria for reperfusion therapy.