



POSTER

# TICI 2B versus TICI 3 reperfusion: what is its prognostic value? Should there be a place for TICI 2C?

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From the Lisbon Stroke Summit, Lisbon, Portugal. 6–7 April 2018.

## Abstract

**Background:** Thrombolysis in cerebral infarction (TICI) grade is the most applied classification to assess reperfusion in patients treated with thrombectomy (EVT) for acute ischemic stroke (AIS), grades 2B/3 considered successful reperfusion. However, with this scale, a wide range of patients is included in a single category, despite heterogeneous angiographic outcome. TICI2B score does not differentiate between 51% or nearly total perfusion and this difference could relate to outcome of patients.

**Objective:** To compare the clinical outcome of patients that underwent EVT for AIS, according to its recanalization grade TICI 2B or TICI 3. To evaluate the relevance of adding an intermediate class 2C in the prognosis of the 2B class.

**Methods:** Registries of 220 patients who underwent EVT in our center in 2016-2017 were reviewed, and 128 TICI 2B/3 patients included. Clinical outcome was measured as  $\Delta$ NIHSS (pre-treatment vs discharge) and modified ranking scale (mRS) at 90 days. Two subgroups were established

based on pre-treatment CT scan: ASPECTS $\geq$ 8/ASPECTS $<$ 8. Clinical outcome of TICI 2B (67) vs 3 (61) was compared in subgroups. Afterwards TICI 2B patients were subdivided into 2B (40) and 2C (27) groups, the last defined as distal vessel occlusions/near complete reperfusion. TICI 2Bvs2Cvs3 outcomes were then compared.

**Results:** TICI 3 patients had superior short ( $\Delta$ NIHSS) and mid-term (mRS) clinical outcome compared to TICI2B, mainly in the ASPECTS  $\geq$ 8 subgroup. There were no statistical significant differences between groups after subdividing 2B into a 2C class.

**Conclusions:** A combination of a higher pre-treatment ASPECTS score and a TICI 3 was associated with a better clinical outcome. When comparing the clinical outcome of TICI2B-vs2Cvs3 groups, no statistical significance was achieved, although we acknowledge that the small size of the 2C group was a limitation for this analysis.

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Citation: Raposo et al. TICI 2B versus TICI 3 reperfusion: what is its prognostic value? Should there be a place for TICI 2C?. International Journal of Clinical Neurosciences and Mental Health 2018; 5(Suppl. 1):P21

Published: 06 April 2018



Open Access Publication Available at <http://ijcnmh.arc-publishing.org>

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