Reviewer’s report

Title: Outcomes of thrombolytic therapy in acute ischemic stroke: mothership, drip-and-ship, and ship-and-drip paradigms

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Reviewer: Janika Kõrv

Reviewer's report:

This a retrospective study analysing medical records of all patients with acute ischemic stroke receiving thrombolytic therapy during a 2-year period in a comprehensive stroke centre from 2016-2017 in Bangkok, Thailand. The patients were divided into 3 groups: directly arriving to the stroke centre for iv thrombolysis (mothership), thrombolysis guided via telestroke consultation at the spoke hospital with secondary transfer to the stroke centre (drip-and-ship) and presented at the community hospital with secondary transfer to the stroke centre for iv thrombolysis ("ship-and-drip" protocol). The authors conclude that there was no difference of clinical outcome among the 3 treatment paradigms.

It has been shown earlier that the outcome of iv thrombolysis is dependent of time and therefore the treatment should be started as early as possible ("time is brain"). However, when the spoke hospitals are far from the stroke center, thrombolysis guided by telestroke is the only chance for these patients to receive treatment. Therefore, the statement that the authors were the first to demonstrate that: "...time to treatment and clinical outcomes among patients treated with three different mode of rtPA delivery including mothership, drip-and-ship, and ship-and-drip paradigms" does not make sense in clinical practice. The small number of patients in all groups might be the reason for not finding significant differences between the groups for mRS and mortality at 3 months, in-hospital mortality and sICH. The ship-and-drip group had longest DTN and OTN times and therefore this paradigm should be avoided. However, this finding is scientifically not new but important data for reorganizing stroke pathways.

The author should describe the background and methods in more detail: is the treatment free of charge for all patients, how long are the distances between the stroke centre and spoke hospitals, how was functional outcome and mortality evaluated.

Why was female sex related to in hospital mortality and mortality at 3 months- was age included into the multiple regression model?

Please comment, why the history of myocardial infarction was related to sICH?

Minor issues:

Female ("sex" is missing?) on line 60, p7 and line 2, p 8

Reference 21. First author's name is Perez de la Ossa, N.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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