Reviewer's report

Title: Interleukin-10 facilitates selection of patients for systemic thrombolysis

Version: 3 Date: 13 March 2013

Reviewer: Brian Buck

Reviewer's report:

The authors have addressed most of the concerns raised in my initial review and the manuscript is improved. I still find the paper is at times difficult to follow. The key conclusion that IL-10 levels are “independently associated” with good outcome in thrombolytic patients is not fully substantiated by the statistics.

Major compulsory revisions:

1) The author's state:

The only molecular marker independently associated with good outcome in patients treated with t-PA was IL-10, both in patients with PDM (OR: 1.08, CI 95%: 1.94-17.22) and with CDM (OR: 1.09, CI 95%: 1.04-1.13).

It is unclear what variable were included in the logistic regression. They are not listed in the statistical methods. Patients with poor outcome had at baseline almost three times the volume of infarct core (DWI volume). It would be expected these patients do worse. Are IL-10 levels predictive of poor outcome when DWI volume is included as a covariate in the logistic regression models? Is possible that IL-10 levels negatively correlated with DWI volume at baseline and do not independently predict poor outcome but are a marker of a large infarct core at baseline?

2) The author's state:

“One of the reasons why the results are inconclusive is the fact that different studies use different PWI thecniques, such as MMT, regional cerebral flow or arterial input function, finding different PWI volumes in the same patient.”

This sentence needs to be revised. Please review with neuroradiology co-authors.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.