Reviewer's report

Title: Minimally invasive stereotactic puncture and thrombolysis therapy versus conventional craniotomy in the treatment of acute intracerebral hemorrhage randomized controlled trial

Version: 3 Date: 8 January 2011

Reviewer: Uzma Samadani

Reviewer's report:

The authors present their randomized presumably prospective trial evaluating the safety and efficacy of a minimally invasive lytic urokinase-based therapy versus craniotomy for management of deep spontaneous intracerebral hemorrhage. The authors show no statistically significant differences in mortality, however the minimally invasive cohort has improved Glasgow outcome scores, and decreased risk of seizures, pneumonia and Cushing's ulcer relative to their operated peers.


The relative unavailability of urokinase in the United States, however, does not diminish from the scientific credibility of the attached paper which demonstrates rather elegantly that removing blood from the head via the least invasive method, is better than via the most invasive method. A limitation of this study is that there is no third treatment arm consisting of optimal medical management without any surgical intervention whatsoever. Further, ideally, all patients participating in the study should have been issued identical head dressings, with sham tubing as necessary, so that those assessing outcomes would be blinded to the nature of treatment.

Major Compulsory Revisions:

1.) The authors should state that this was a prospective study, as it presumably was, in the abstract and methods.

2.) If the treatment groups were randomized by a computer, why was there
asymmetry in the numbers of patients assigned to each group? (90 MISPTT vs 78 craniotomy).

3.) Were the outcome analyzers blinded to the type of treatment to the greatest extent possible? Were the outcome analyzers members of the surgical team?

4.) Were both treatment groups issued prophylaxis against seizures, and Cushing's ulcer? Were equally appropriate precautions taken to prevent pneumonias in both treatment groups (eg cared for by the same core physicians and nurses, intubated at the same level of neurologic impairment, tracheostomized when necessary)

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have no competing interests.