Reviewer's report

Title: Copeptin is associated with mortality and outcome in patients with acute intracerebral hemorrhage

Version: 1 Date: 26 March 2010

Reviewer: Bart Nathan

Reviewer's report:

The paper "Copeptin is associated with mortality and outcome in patients with acute intracerebral hemorrhage" might be better titled "Copeptin is associated with increased mortality and poor outcome in patients with acute intracerebral hemorrhage"

This study extends the analysis of copeptin concentration in another devastating disease, intracerebral hemorrhage. Although the patient population was small, it represented a significant amount of time and energy in this less common form of stroke. The paper suggests that measuring copeptin concentrations may aid in the ability to prognosticate better in ICH. While I certainly commend the authors on their data, I do not feel that at this stage (or perhaps ever), measuring these concentration will have much advantage over clinical and radiological evaluation. The authors freely admit that these measurements do no better than the admission GCS or ICH volume. There was also no mention of combined clinical scores such as the Hemphill score.

The concept that this elevation in copeptin may be at least partially based on cerebral edema is intriguing, but there is not evidence presented here that this is the case. Are there animal studies in ICH that support this hypothesis? How might understanding the role of copeptin in ICH help with possible therapeutic interventions?

I would like to see the following included in the manuscript.
Include the Hemphill or similar combined scores for ICH prognosis in their comparison
Downplay the role of Copeptin as a possible prognostic marker
Explore the potential pathophysiogical role of Copeptin in ICH more fully.
More fully explore the possible therapeutic relevance of this peptide elevation

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a
Declaration of competing interests:

'I declare that I have no competing interests'