Reviewer’s report

Title: Cognition after malignant media infarction and decompressive hemicraniectomy

Version: 3 Date: 26 April 2011

Reviewer: Tibo Gerriets

Reviewer’s report:

In reference to the minor points almost all of our original questions have been answered:

- To the underlying pathophysiology which is assumed to play a role in the outcomes like cognitive impairment or depression, the authors added a short paragraph to the discussion section.
- To the presentation of the Figures 1-2 the authors changed the figures according to our suggestion.

However, in reference to the extraordinarily duration of the cognitive assessment (3-4 hours, with breaks) it should be mentioned that handicapped patients have disadvantages in their alertness and concentration compared to a healthy control group.

To the major points, the authors addressed all points and discussed them intensively. In our opinion it is still unfortunate that the study cannot provide data about conventionally treated patients as they were not available. The choice of healthy controls provides only a general description of the poor status of neurologically impaired patients. A problem remains the variance of the time point in cognitive testing after DCH as some patients were tested several years (up to nearly 8 years) and it should at least be discussed.

It is important that the authors discussed the influence of depression and hQol in the revised version. However, it is unclear why they conclude on page 18: “The lack of a significant correlation between BDI and cognitive functioning indicates that depression was the primary factor affecting cognitive performance” – do they mean: does not indicate that depression was the primary factor?

Level of interest: An article of outstanding merit and interest in its field

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

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

Declaration of competing interests:
I declare that I have no competing interests