Reviewer's report

Title: Automatic volumetry on MR brain images can support diagnostic decision making

Version: 1 Date: 1 April 2008

Reviewer: Tom den Heijer

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I have the following comments:

1) How severely demented were the AD patients (i.e. what was their CDR or MMSE?)

2) Was there a difference in diagnostic accuracy between the neuroradiologist and general radiologist?

3) Were the readers blinded on how many subjects had dementia and how many not in their total of 14 scan readings?

4) What were the initial confidence scores and the confidence score after the overlay method? Can the authors put this in a table according to reader and subject?

5) It would be nice if intrareader consistency measures on the confidence score are available. Also, it might be nice to see confidence scores on overlain scans and normal scans independently (ie not scored directly one after the other)

6) In the figure of the AD patient (d) the left hippocampus is red indicating a relatively large volume, which is counter to expected. Was the absolute volume of this hippocampus indeed larger than the other 16 subjects?