Reviewer’s report

**Title:** Cingulate cortex hypoperfusion predicts Alzheimer disease in mild cognitive impairment

**Authors:**
- Chaorui C Huang (chaorui.huang@neurotec.ki.se)
- Lars-Olof L-O Wahlund (lars-olof.wahlund@neurotec.ki.se)
- Leif L Svensson (leif@asf.hs.sll.se)
- Bengt B Winblad (bengt.winblad@neurotec.ki.se)
- Per P Julin (per.julin@neurotec.ki.se)

**Version:** 1  **Date:** 16 Jul 2002

**Reviewer:** Dr Keith Johnson

**Level of interest:** A paper of considerable general medical or scientific interest

**Advice on publication:** Accept after discretionary revisions

**Comments**

**Discretionary:**
1. Huang et al investigated 54 MCI subjects with HMPAO-SPECT, who were then followed for average of 2 years. Those that progressed to AD were compared to those that remained stable. Perfusion in the left posterior cingulate was reduced in those who progressed compared to those who remained stable. Since there is considerable variation in the use of the MCI concept across different groups of investigators, many readers would be interested in a description of the details of subject recruitment, inclusion and exclusion criteria, fractions excluded, etc. In addition, it may be useful to compare the conversion rate for this sample to published samples of MCI conversion, in order to evaluate whether these subjects were more severely impaired at entry.

2. The results of the neuropsychological tests could be included. If tests were administered at baseline and at the time of PMCI determination, these data would be of particular interest.

3. The statement about concurrent medication use is not perhaps as clear as it could be. Were any subjects taking psychotropic or cholinesterase inhibitor medication?

4. The finding reported here is of significant interest. A regionally specific functional anatomy of preclinical AD would likely be quite useful for both research and clinical practice. The finding would be strengthened if MMSE and/or Neuropsychological test scores were associated with regional perfusion in this sample.

5. A table containing the values for group mean perfusion ratios and odds ratios for each of the regions tested would be useful to understand how the left posterior cingulate and parieto-temporal regions compared to each of the others.

6. It would perhaps be useful to indicate that the tests of statistical significance did or did not included
correction for multiple comparisons, across the 24 VOIs.

**Competing interests:**

None declared.