Reviewer's report

Title: The functional magnetic resonance imaging (fMRI) procedure as experienced by healthy participants and stroke patients

Version: 1 Date: 25 October 2008

Reviewer: Marc Dewey

Reviewer's report:

General Comments
This paper deals with the MR imaging experiences by healthy participants and stroke patients.

Title
OK.

Abstract
There are no facts given about the findings in that study. Figures and statistical analyses would be good. The conclusion is rather long and at least in part, especially the last sentence, not supported by findings in the study.

Introduction
OK.

Papers on MR safety such as the ACR white paper should be included.

Methods
Established questionnaires about perception of MR imaging, especially including claustrophobia such as the CLQ, were unfortunately not used.

An eight-item questionnaire of which actually 3 questions are related to the issue discussed is used instead. In contrast to the statement in the introduction, there is no question asking for how stressful or convenient the MR was. There is only one unspecific question (“how was the scanning procedure?”).

No statistics paragraph is given.

How many patients had to be excluded for absolute contraindications to MR imaging? For what reason?

No results should be given here, especially nothing speculative (such as “approximately one third of the subjects participated …”).

Was written informed consent for this questionnaire study obtained?

Was approval by the IRB in regards to this questionnaire study obtained?

More information about the scanner (width, length, dB) would be helpful.

Please explain abbreviations at first use (TR, TE, MPRAGE, FOV).
It appears that many of the studies involving volunteers had not the same set-up leading to nonuniformity of the MR imaging experience.

Results
It is unusual to have the results and discussion in one paragraph. This is very hard to read. No statistical analyses are performed.
Some information that belongs to the methods is given here (earplugs, type of studies).
Having one out of 70 volunteers being claustrophobic does not appear to be much less than the average of 2.1 to 2.3% found in previous summary analyses of claustrophobic events. Also the number of patients included appears to be too small to comment on reduction of claustrophobic events by selecting only those who are not in fear of narrow spaces.
How often did head movements result in relevant artifacts?
Average imaging times should be given.
Why were patients imaged twice? Should this be explained in the methods?

Conclusions
There is no statistical comparison of results in patients and volunteers.
Major strains or stress were also not included in the questionnaire.
There is no comparison with other psychology studies performed. Thus, it might be not on solid grounds to draw comparisons here.
A strong and well-founded closing sentence would be good.

Figures
No comparison of the results shown in Figure 2 is performed.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
Speakers Bureau: Toshiba Medical Systems and Schering (now: Bayer).
Workshops: www.herz-kurs.de