Reviewer's report

Title: The Posterior Communicating Arteries in the Patients with Sudden Deafness: Evaluation with Magnetic Resonance Imaging (MRA)

Version: 1 Date: 8 November 2005

Reviewer: Miguel Goncalves

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The only statistical techniques used are the t-test and the Kruskal-Wallis analysis. However, I cannot see any justification for the use of the Kruskal-Wallis analysis. This is a non-parametric test and is usually used when its parametric alternative is not suitable. This may be the case here, but the authors do not make it clear.

However, I am slightly concerned with the findings and the way they are presented. The fact that there weren't statistical significant differences between patients and controls does not mean that there is "no link between the occurrence of SD and the absence of the ipsilateral Pcom" (Abstract, Conclusion). I think the wording needs to be tone down for two reasons: 1 ? There was not a power calculation in the study. The absence of evidence is not evidence of absence. Just because this study did not find a difference, it does not mean that there is not a difference.

2 ? There may be a series of factors behind the absence a statistical significant difference. For example, the authors report (but do not discuss) the fact that there is a clear difference in gender between patients and controls (patients ? 56% male; controls ? 87% male). The p-value reported is 0.06 and it is very near significance and could be playing a bigger role here than the authors are reporting.

Suggested Changes:
1. Rename the "Kruskal-Wallis analysis" to "Kruskal-Wallis test".
2. Explain why a Kruskal-Wallis test was preferred to a parametric alternative.
3. Tone down the manuscript findings particularly in the abstract.