Author's response to reviews

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

Authors:

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Author's response to reviews: see over
Reviewer: Yi-Ho H Young

1. The recovery of SD.

Since the number of the subjects was only 16, and some SD patients were lost to follow-up, we do not think that detailed analysis is appropriate.

2. Pcom artery has been labeled on the figure.

Reviewer: Desiderio Passali

1. Statistical methods.

We changed the statistical analysis to a Fisher’s exact test.

2. We did not include a functional test.

The visible Pcom is surely functional. We feel that anatomical analysis is enough to show the presence of functional Pcom, since the blood flow itself may result in Pcom depiction on MRA.

3. The anatomical absence of Pcom is a very rare event <1%.

Kapoor et al studied the anatomy of the Willis in animals, not in human subjects. The posterior collateral pathway was judged nonfunctional on MRA in 31% cases in human subjects (ref. 6).


We added a comment stating this as a limitation in the discussion.

“Our examined population was Japanese and De Felice et al. (2) studied a Caucasian population. This difference may be the reason for the different results, but to our knowledge, there have been no reports showing racial differences of Willis anatomy.”

Reviewer: Miguel Goncalves

1. Statistical techniques:

We employed the Fisher’s exact test instead of the Kruskal-Wallis test.

2. The absence of evidence if not evidence of absence:

We toned down the conclusion.

“...our results cannot support the hypothesis that the absence of Pcom may be a risk factor for the occurrence of SD.”

3. A clear difference in gender between patients and controls:

The number of the control subjects has been increased to 128 subjects, by employing all subjects who underwent MR examinations as a part of an annual medical check-up in our hospital during the same period (one year). All control subjects were neurologically healthy, no cochlear or vestibular symptoms were present, and normal
standard pure tone audiometry was within the normal limit. There was no statistical
difference between the controls and SD patients in gender (P=0.35) and age (p=0.69).