Reviewer’s report

Title: Incidence of a round window membrane rupture in patients with sudden sensorineural hearing loss

Version: 3 Date: 24 June 2012

Reviewer: Tino Just

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Some aspects need to be clarified.
Material and methods.
Please provide more data of the 69 patients (*treatment prior to explorative surgery, duration of hearing loss, preexisting hearing loss).
Results.
Was there a correlation between the mentioned factors* and the recovery rate?
With regard to the surgical technique, did the surgeons exposure the round window membrane by drilling the bone overhang during exploratory tympanotomy or was fluid in the round window niche a criterion for a rupture? Did the surgeons also observed the stapes footplate during surgery (micro-fissures etc.)?
Please provide the mean values for each frequency separately. Did the authors recognize a worsening of air conduction after surgery?
Discussion.
The number of patients with a round window membrane fistula varies among the studies depending on many factors (patient’s history, surgical procedure with exposure of the round and oval window niche, imaging modalities to identify a rupture). This retrospective study shows that 3 out of 7 patients with a typical history had a fistula, one patient a doubtful fistula and 3 had no fistula, while 38% of patients without a typical history had either a fistula or a doubtful fistula.
With regard to indication and hearing outcome, the authors should emphasize and discuss the indication for exploratory tympanotomy more in detail.
Do the authors recommend performing exploratory tympanotomy regardless the patient’s history prior to steroid medication in patients with a sudden hearing loss and if yes, when?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a
statistician.