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Clinical study of tympanostomy tube placement for patients with intractable Ménière's disease

Dear Sirs,

We applaud the manuscript on tympanostomy tube placement for intractable Ménière's disease by Ogawa *et al*.[1] We concur with the authors that it constitutes a far less invasive treatment option than most other described procedures; its complication rate is very low. Indeed, it should be used as initial treatment.

We would like to add that we are of the opinion that a pressure regulating system functions within the cochlea, and that the effectiveness of grommet placement might be related to this pressure regulation.[2] Whereas pressure regulation would normally concern pressure from the outside environment, in Ménière's disease it probably develops from the endolymphatic hydrops which supposedly is the cause of the well-known symptoms. The aural fullness is of particular interest here.

Contrary to the common therapy of a low sodium diet (as mentioned by Ogawa *et al*.[1]), we suggest that a low potassium diet, in combination with less coffee and more water, should be implemented in the first treatment step.[3] This is because we think that a relative abundance of potassium – due to an osmolarity difference between the endolymph and perilymph – attracts water via the semi-permeable Reissner membrane.

One could argue that the study by Ogawa *et al*. did not show a 100 per cent resolution of all vertigo spells. However, so far no therapy has achieved a 100 per cent resolution of vertigo in Ménière's disease.

Ménière's disease diagnosis is based on a combination of symptoms, and it is allegedly caused by the 'epiphenomenon' of hydrops. The true cause for the development of the hydrops (and thus for the symptoms) is still unknown, and it could be that more than just one causative factor is involved. So, if not all factors are known and consequently treated, no therapy will cure all Ménière's disease sufferers.

Furthermore, a recent study also showed a high incidence of benign positional paroxysmal vertigo (BPPV) in patients with Ménière's disease.[4] In future studies, it will be relevant to make sure that the 'intractable' cases of Ménière's disease are not caused (to some extent) by concomitant BPPV. The same holds true for the exclusion of other disorders that can cause vertigo, like vestibular migraine.[5]

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