Review of: "The proteome of the human endolymphatic sac endolymph"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Dear Editor,

The function of human endolymphatic sac (ES) and its relation to the connected cochlear and vestibular organ is largely unknown. This study provides no indication about the role of human ES regarding fluid and ion transport nor other roles. However the authors tried their best to reduce contamination of the fluid sampled from human ES and could get hard-to-get data of human ES proteins. Biopsy of the sac was limited to a small region of the sac, therefore impossible to reflect true situation considering numerous cell types, along the duct and sac, from cochlea and vestibule, contributing to the content of the fluid. The lack of possibilities to obtain control samples, as the authors pointed out too, is another factor that compromises the value of the findings. If protein localization study (in situ hybridization, immunohistochemistry, etc.) could be combined with the proteome study and perhaps only so, there could be meanings to the proteins' function and even their etiological role in inner ear diseases insulting both hearing and balance.

In addition, there are a lot of drilling works before reaching the endolymphatic sac. This could be of influence on the content although the surgeon cooled the bone off and rinsed it with Ringer solution ahead of sampling. Vestibular Schwannoma (VS) affecting the content of the fluid cannot be ruled out too, especially when translabyrinthine surgery is used to patients of poor hearing.

ES could be draining from all parts of the inner ear. Metabolism of numerous cell types as well as permeability of abundant vessels in the sac and other parts of inner ear could be changed against any stimulation.

Following points should be changed to make the expression understandable:

1.Page 2, image a, sssc, the name of the structure is often shortened as ssc (superior semicircular canal).

2. Page 6, third to the last line, "…an immune histochemical rich expression …" should better be changed

into "…using immunohistochemical technique a rich expression…"

While the study raised questions where came those proteins and why, these key questions need to be answered by using other techniques such as in situ hybridization, immunohistochemistry, multi-photon fluorescence microscopy, electron immunogold microscopy, etc.

However the study results look convincing and the manuscript is nicely written. I suggest minor revision before acceptance for publication.

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