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LETTER TO THE EDITOR (BY INVITATION) - NEUROSURGERY TRAINING

# Letter: How I do it: Retrosigmoid intradural inframeatal petrosectomy

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Dear Editor,

We thank Drs. Menegatti, Travaglini, and Gelmi for taking interest in our article "How I do it: retrosigmoid intradural inframeatal petrosectomy" [4] and for their kind remarks. In their letter to the editor, they pose three specific questions that we have been asked to respond to.

Their first question is whether the presence of a high jugular bulb impedes drilling when performing a retrosigmoid intradural inframeatal petrosectomy (RESIP). If there is a high jugular bulb, the surgical "window" will be very small and often not yield sufficient room to maneuver safely. Consequently, the RESIP will be less useful and carry higher risk, wherefore we would opt to use one of the alternatives mentioned [4]. The pre-operative images must be carefully assessed, particularly with respect to the anatomy of the jugular bulb and the superior and inferior petrosal sinuses. Furthermore, neuronavigation and augmented reality facilitate the pre-operative planning [1, 2]. Lastly, there is great variability of the petrous bone itself and an in-depth knowledge of petrous bone anatomy is crucial and is best be practiced in the cadaver lab [3].

Their second question is whether we experience an excessive cerebellar retraction when performing the inframeatal drilling. As can be appreciated from the video [4], I generally do not use retractors, as proper positioning and patient drainage of CSF suffice in the vast majority of cases.

Their third question is whether we preoperatively estimate the angle of drilling on CT or MRI images and consider it as a key factor in choosing this kind of approach (versus subtemporal or anterior or combined petrous approaches). This is a good question, and the short answer is yes. Similar to drilling of the internal auditory canal [7] or the suprameatal approach [5, 6], the angle of drilling is important to consider since an angle of attack too tangential might increase the risk of the drilling and will certainly reduce the efficacy of the RESIP procedure itself, as the drilling angle generally also reflects the working angle for the subsequent tumor resection. However, we have not yet defined a cut-off for the RESIP, something that would be very interesting to study in cadavers.

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