In Response to “Facial Nerve Schwannomas Mimicking as Vestibular Schwannomas” by Beth N. McNulty et al

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J Neurol Surg B 2019;80:327–328.

I am writing to you with reference to an interesting study, published in your esteemed journal, titled “Facial Nerve Schwannomas Mimicking as Vestibular Schwannomas” by Beth N. McNulty et al.¹ I would like to appreciate the efforts made by the authors to shed light on this controversial topic. However, I would like to critically appraise the methodology and the author's conclusions of which I have some reservations and would like to highlight these through your prestigious journal.

The retrospective study appears to be an attempt at solving the clinical question of whether the facial schwannomas with intact facial function could be preoperatively distinguished from vestibular schwannomas. The authors have highlighted on preoperative electroneuronography, which may have a role in predicting the facial schwannomas.

Fig. 1 Facial nerve mapping shows its anterior displacement by right-sided acoustic schwannoma.

They have concluded that the absence of plane between facial nerve/tumor and the recording of action potential on stimulating tumor capsule or bony internal auditory canal drilling has aided in intraoperative diagnosis of facial schwannomas in approximately 70% of cases in the study.

I would like a clarification on the imaging protocol used to investigate these patients. As described in the literature, approximately 40% of facial schwannomas involve either the intracanalicular part, the cisternal part, or both.² These tumors could be confused with acoustic schwannomas, especially in the absence of facial weakness. However, recent advances in imaging protocols have allowed clinicians to reliably predict the relationship of the schwannoma to surrounding nerve fibers and thereby its origin.

At our institution, in addition to the usual protocol for magnetic resonance imaging of vestibular schwannomas, we perform diffusion tensor imaging protocol to reliably predict its relationship with the facial nerves. Diffusion tensor tractography is well noted in literature to accurately predict the relationship of facial nerve fibers³ and is found to have reliable correlation to intraoperative findings (→ Fig. 1).⁴

In conclusion, we would like to congratulate the authors for their efforts. Mapping the facial nerve fibers by diffusion tensor imaging should also be considered in distinguishing facial schwannomas from acoustic tumors.

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received

September 12, 2017

accepted after revision

October 13, 2017

published online

December 13, 2017

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Stuttgart · New York

DOI <https://doi.org/10.1055/s-0037-1609032>.
ISSN 2193-6331.

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