



Letter to Editor

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Microvascular Decompression for Hemifacial Spasm without the Use of Neuromonitoring and Fix Retraction: A Single-Center Experience

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Dear Editor,

I have read with interest the article by Pusat et al. (2), which presents a single-center experience of microvascular decompression (MVD) for hemifacial spasm (HFS) without the use of neuromonitoring. While the authors assert that the disappearance of lateral spread response (LSR) during surgery does not correlate with postoperative symptom relief, our clinical experience contradicts this finding.

Our institution has a longstanding practice of utilizing intraoperative neuromonitoring for HFS surgeries. Our data, accumulated over years of meticulous monitoring, indicate that the elimination of LSR intraoperatively is closely associated with positive patient outcomes. Most of our patients experience significant symptom relief following surgery, aligning with the disappearance of LSR. This observation is supported by the systematic review and meta-analysis conducted by Thirumala et al. (3), which assigns a high negative predictive value, nearing 93% to 96%, to the absence of LSR in the operating room. The study concludes that persistent LSR is a significant risk factor for the continued presence of HFS, with a probability of symptom persistence ranging from 24.4% to 47.8% when LSR does not resolve (3). Pusat et al. believe that the disappearance of LSR may not be related to postoperative symptom relief, possibly because some HFS patients have a dual pathology involving both vascular compression and hyperexcitability of the facial nerve nucleus (1). However, this does not deny the importance of neurophysiological monitoring during surgery.

In conclusion, our experience and the literature support the continued use of LSR monitoring during MVD for HFS, as it is helpful to achieve better surgical outcomes and patient satisfaction. We are eager to engage in further discussions on surgical techniques and neurophysiological monitoring.

Declarations

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AUTHORSHIP CONTRIBUTION

Study conception and design: XH

Data collection: DL

Analysis and interpretation of results: XH

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REFERENCES

1. Moller AR: Hemifacial spasm: Ephaptic transmission or hyperexcitability of the facial motor nucleus? Experimental Neurology 98:110-119, 1987. [https://doi.org/10.1016/0014-4886\(87\)90076-8](https://doi.org/10.1016/0014-4886(87)90076-8).
2. Pusat S, Erdogan E, Atar M, Erbas YC, Erdogan E: Microvascular decompression for hemifacial spasm without the use of neuromonitoring and fix retraction: A single-center experience. Turk Neurosurg 34:429-434, 2024. <https://doi.org/10.5137/1019-5149.JTN.42249-22.3>.
3. Thirumala PD, Altibi AM, Chang R, Saca EE, Iyengar P, Reddy R, Anetakis K, Crammond DJ, Balzer JR, Sekula RF: The utility of intraoperative lateral spread recording in microvascular decompression for hemifacial spasm: A systematic review and meta-analysis. Neurosurgery 87:E473-E484, 2020. <https://doi.org/10.1093/neurology/nyaa069>.

