



## Letter of response to “Letter-to-the Editor BRS-D-23-00557”

Dear Editor,

we thank Denise Lima Medeiros de Melo and her colleagues for sharing their observation of a trigeminal-hypoglossal reflex being observed during intraoperative neurophysiological monitoring in response to our paper.

The authors describe a trigeminal-hypoglossal reflex (THR) evoked by cutaneous V2 stimulation resembling a R1-like component in the Blink Reflex, and similar to the R1 type response recorded by Maisonobe from the Genioglossus muscle, after stimulation of the lingual nerve (mucosal V3). The monomorphic pattern and latencies support the oligosynaptic rather than the polysynaptic origin. Interestingly, a reflex response with a mean latency of 17.6 msec from the tongue muscle could also be elicited in one patient by supraorbital nerve stimulation, which was not described by Maisonobe.

Maisonobe et al. (1998) studied awake, normal subjects, while in the letter by Medeiros et al. as well as in our paper; responses were recorded in patients under general anesthesia harboring posterior fossa lesions. The „reflexes“ obtained in patients with brainstem lesions should always be interpreted in the view that we are possibly recording pathological responses, due to the presence of the lesion, that have not yet been fully described until nowadays. For this reason, the observation of an early THR is interesting and deserves further investigation. We strongly encourage the authors to do so.

We would like to point out that the naming of trigeminal-hypoglossal reflexes is very inconsistent in the literature. A convention on this is desirable, if not necessary. One option would be to classify the reflex nomenclature, comparable to the blink reflex, into short, middle, and long latencies and to label these as R1, R2, and R3. This would allow a distinction between different reflex responses and against a CMAP.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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