
I would like to thank the authors for their important contribution in this somewhat neglected area.1 However, I would like to make a few comments as well as suggestions for future investigations.

First, although the authors noted that their participants were an average of 25 months from onset of the facial movement disorder, they did not note which patients were in the acute phase (which has a temporary hypotonic presentation) and which patients were in the residual phase (which can have a more stable hypertonic presentation such as the one seen at times after acoustic neuroma surgery). The importance in making this distinction is that, although the reason for the facial asymmetry in a hypotonic presentation is paresis of the orbicularis oris muscle of the involved side and/or overactivity of the contralateral side, the reason for the asymmetry in the hypertonic and synkinetic presentation often is a coactivation of the orbicularis oris together with the mouth depressors and the platysma muscle.

Second, because of the issue described in the first point, the use of only the video motion analysis system, regardless of how sophisticated the analysis is, will fail to recognize the difference between the hypertonic case, in which there is lack of motion due to coactivation of 2 muscle groups, and the hypotonic scenario, in which there is lack of motion because of paresis in the primary mover (in this case, the orbicularis oris muscle). To address this issue, the video analysis should be coupled with evaluation using surface electromyography (sEMG).

Third, because of the lack recognition of the hypertonic scenario (which probably represents the majority of cases in this study), the true implications of the phenomenon are perhaps missed by the authors. Taking into consideration synkinesis between the orbicularis oris muscle and the mouth depressors and platysma muscles, 2 possible theories should be further investigated:

1. In the blowing movement, the platysma muscle is normally activated; in the puckering movement, it is not. Therefore, while the coarticulation is normal in one movement, it is abnormal in another and, therefore, there is greater asymmetry in the puckering movement (where the coarticulation is abnormal) and less in the blowing movement (where there is coarticulation in both sides of the face and, therefore, less asymmetry).

2. The second possible explanation is that, while in a puckering movement, the orbicularis oris is actively moving, in the blowing movement, the orbicularis oris is held in more of an isotonic contraction. From anecdotal observation of hundreds of patients with synkinesis, it could be clearly noted that synkinesis is more easily integrated (controlled) when the primary mover (in this case, the orbicularis oris muscle) is in isotonic contraction rather than actually moving. Therefore, greater asymmetry is produced in the puckering movement than in the blowing movement. As a matter of fact, this principle is widely used in our neuromuscular retraining protocol to create a “stepping stone” stage in the retraining of integration.

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Reference


Author Response

In response to the comment by Dr Halili, we would like to clarify several issues regarding our article.1 The patients in the study were all currently in the residual phase: at least 6 weeks after onset of facial paresis. Although we did not report the level of synkinesis in the platysma and depressor anguli oris muscles in the patient population, patients were in the residual phase.

Although we agree that surface electromyography would add to the study of facial movement in puckering and blowing, we would like to point out that the presence of a facial electrode close enough to the muscle of interest to record electrical activity would likely affect the movement. One advantage of using the automated method of measurement is that it does not require any markings on the face, an advantage that would be negated by the use of electrodes.

We would like to comment on the hypothesized effects of coactivation of other muscles in the movements studied. Halili states, “In the blowing movement, the platysma muscle is normally activated; in the puckering movement, it is not.” We are skeptical that this is the case. We have no evidence of this from studies of movement in
Letters to the Editor

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References

Correction

The first sentence of the “Sticks and Carrots” section should state:

Support and guidance facilitate exercise maintenance, but demands relating to organizational aspects of exercise sessions, such as making agreements, are perceived as being of even greater importance.

The Journal regrets the error.