The effect of the Schwartz-Jampel syndrome on masticatory and facial musculatures--an electromyographic analysis.


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This study had the goal to perform an electromyography evaluation of the orbicularis oris, orbicularis oculi, masseter, and temporal muscles of two siblings with Schwartz-Jampel syndrome (SJS), in different clinical activities, comparing them to healthy controls (C). The Schwartz-Jampel syndrome is a rare genetic disorder (71 cases reported in worldwide literature), in which myotonia may be observed in the facial muscles, determining a standard facie that shows an appearance of someone who is sad and weeping. For the electromyography (EMG), a Myotronics--K61 electromyographer, was used, with superficial and disposable silver chloride electrodes. By means of the analysis of the obtained results, we observed significant statistical differences for the masseter muscle and for orbicularis oculi muscles (p < 0.01) among the studied groups, in which the individuals with SJS presented greater muscular activity than the normal ones, used as healthy controls. The statistical difference between the two groups was not significant for the temporal muscle, as well as for the orbicularis oris muscle, although the EMG averages were much greater in patients who were bringers of the syndrome. This high muscular activity may be related to the facial osseous alterations, evidenced in both patients with SJS, such as the mandibular migrognathia, with an atrophy of the mandibular cortex and a consequent approximation between the inferior dental root apices and the mandible base, as well as the presence of hypoplastic condyles in terms of size and height.

Publication Types:

- Case Reports

PMID: 15981691 [PubMed - indexed for MEDLINE]