

25. Evaluation of electromyographic activity of temporalis, masseter, digastric and sternocleidomastoid muscles in surgically managed temporomandibular joint trauma cases

S Venkat Aditya

Sri Sai College of Dental Surgery

The present study was intended to evaluate the muscle activity of masseter, temporalis, anterior belly of digastric and sternocleidomastoid muscles using surface electromyography in surgically managed temporomandibular joint trauma cases and to compare the same with the control group.. Materials and methodology: surface electromyography was used to evaluate muscle activity and jaw tracking device was used to evaluate mandibular movements. The surface electrodes were placed on the most prominent part of the muscles . The emg activity was studied bilaterally with the mandible at the rest position and during maximal voluntary clenching (mvc). By means of jaw tracking device, maximum mouth opening, protrusion, lateral excursions of the affected and unaffected side were recorded. The records were loaded onto the computer for data analysis.. Results: there was no significant difference in the mean values during resting and biting between the affected and unaffected side with respect to temporalis, masseter, sternocleidomastoid and digastric muscles. There was no significant difference in the mean values during resting between test and control subjects with respect to the temporalis muscle on the affected side, masseter muscle on the affected and unaffected side, sternocleidomastoid muscle on the affected and unaffected side, digastric muscle on the affected side and unaffected side ($p=0.364, 0.326, 0.449, 0.096, 0.325, 0.326$ and 0.52) respectively. However with respect to temporalis muscle on the unaffected side, control subjects had significantly higher mean than test group ($p=0.023$).

DOI: 10.4103/0972-4052.246634