Quality of life, EMG and bite force in patients during the instalation of mandibular overdentures

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Objectives
Although the rehabilitation with implant-supported overdentures is well stablished in the dental practice, there are no studies comparing what happens to muscle activity and quality of life of patients during the treatment.

Methods
We selected 12 completely edentulous patients, according to the inclusion and exclusion criteria, to install mandibular overdentures retained by two dental implants and a complete denture as antagonist. We evaluated the efficacy of the treatment and its evolution in five distinct steps, initially with the old complete dentures (1) after the implant placement with the mandibular prosthesis relined (2) after the placement on of the healing abutments (3), after the installation and adaptation of new prostheses (4) and after three months of its use (5). At each stage, we evaluated patients through the temporal and masseter electromyography (EMG), bite force and the questionnaire OHIP Edent to assess the quality of life of these patients.

Results
The results for EMG found a decrease in muscle activity during the mastication of raisins and rest position from baseline (1) to the control (5) period ($p < 0.05$), while the bite force and the quality of life of patients gradually improved during the study ($p < 0.05$).

Conclusions
The improvements of this rehabilitation indicates that it should become standard for edentulous individuals especially because its benefits are observed even before the treatment completion.

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