

Gornicki, Michal_2022 Abstract

The Influence Of Prosthetic Procedures On The Masticatory Muscle

Objective

The aim of the research was to evaluate the impact of prosthetic procedures designed to correct occlusal disorders that affect the condition and symmetry of masticatory muscle tone. Using **electromyographic (EMG)** testing, the results of the study was to prove the effectiveness of procedures correcting the occlusion by selective grinding of premature occlusal contacts (group I) and the reconstruction of tooth crowns using a composite material (group II).

Results

The detailed analysis of the test's and **EMG** results allowed for the drawing of some meaningful conclusions that can be implemented in clinical practice to effectively use prosthetic procedures to correct the condition and tension of the masticatory muscles.

Participants and Researcher

The study involved 100 patients of both sexes, aged 20 to 42 years.

The researcher was *Michał Górnicki* for a doctoral dissertation submitted to Jagiellonian University, Krakow, Poland.

Methods

All patients underwent a dental check-up, specialist dental examination as well as the supplementary tests such as: orthopantomogram, a test of electrical activity of masseter muscles.

The patients were divided into two groups of 50 people each. Assignment to group I or II was randomised based on observed occlusal disorders during the clinical trial.

In the first group, corrective procedures were performed in the form of selective grinding of premature contacts. In the second group the reconstructive procedures were performed to build up too low clinical crowns using composite material.

The **electromyographic** testing of masseter muscle activity was done using the 4-channel **EGM NeuroTrac MyoPlus4 Pro** (Verity Medical) with bipolar surface electrodes.

The full abstract can be found at

<https://ruj.uj.edu.pl/server/api/core/bitstreams/d9ac7e9b-e9e3-413c-9671-786ebe9d57fb/content>