

Influence of prosthodontic treatment to craniocervical posture- a clinical and cephalometric study

The objective of this study was to compare the changes in position of the anatomical points and the modification of the craniocervical posture, following a bimaxillary complete prosthetic rehabilitation.

Methods: This prospective monocentric study included twenty complete edentulous patients aged 50 to 80 years requiring total bimaxillary prosthetic rehabilitation, addressing the Department of Prosthodontics of the University of Medicine and Pharmacy Cluj-Napoca. A clinical and cephalometric evaluation (Tweed and Rocabado analysis) was carried out before and one month after the prosthetic rehabilitation. The steps of prosthetic rehabilitation were carried out in a conventional manner (complete removable dentures). All results were categorized and analyzed in two main parts: the modifications common to all the patients and the modifications dependent on the skeletal typology (for hyperdivergent, normodivergent, hypodivergent patients - for the observation of the prosthetic compensation of their typology. Data was analyzed using Wilcoxon test to compare clinical and cephalometric measurements before and after prosthetic rehabilitation.

Results. A significant decrease in the anteroposterior diameter of the lumen of the oropharynx from 13.3 mm to 10.5 mm was identified following the placement of the dentures ($p= 0.043$). For the normodivergent patient, the changes in the position of the anatomical skeletal points vary slightly before and after the prosthodontic treatment and no compensatory change of the skeletal typology was identified.

Conclusions. Prosthetic treatments influence the craniofacial posture. Minimal modifications were observed in normodivergent patients, comparing to hipo or hyperdivergent patients.