

ABSTRACT

Introduction: Condylar guidance is one of the most vital clinical procedures in rehabilitating patients especially with complex restoration. It will have a direct effect on function comfort aesthetics, and denture stability. The use of Cone Beam Computed Tomography still remains controversial. It is mainly due to cost, technique sensitivity and difficulty in availability. The present study was undertaken to is to evaluate correlation between Sagittal Condylar Guidance obtained by cone beam computed tomography imaging modality and three different clinical methods through interocclusal wax records, interocclusal jigs and intraoral tracer in dentulous subjects.

Keywords: Condylar Guidance, Cone Beam Computed Tomography, Intraoral tracer, interocclusal records, Wax record.

Aim: To evaluate correlation between Sagittal Condylar Guidance obtained by cone beam computed tomography imaging modality and three different clinical methods through interocclusal wax records, interocclusal jigs and intraoral tracer in dentulous subjects.

Materials and methods: 30 dentate subjects were selected as per predetermined criteria. . Cone Bean Computed Tomography was obtained for all the subjects. Tracings were performed digitally for all of these radiographs using DICOM software and condylar guidance angle was attained. Clinically, methods were employed with help of interocclusal wax, jig and intraoral tracer and record was obtained. These interocclusal records were transferred to articulator and condylar guidance angle values were attained.

Results: Statistical analysis was done using SPSS Version 23. The condylar guidance angle values obtained from the dentulous subjects was performed using independent sample-t-test to compare the different angles. To describe the data descriptive statistics the mean and standard deviation were used. Condylar guidance values obtained from wax interocclusal record and jig method exhibited high level of significance when compared with CBCT, while intra-oral method revealed lesser significant difference. And there was no statistical significant difference found when right and left sides were compared from all four methods.

Conclusion: The condylar Guidance angle values obtained from Right and Left side from radiographic as well as clinical method can be comparable to a limited degree only. Cone Beam Computed Tomography presents with highest mean condylar guidance values when compared with all three clinical methods. Condylar Guidance values obtained from all clinical methods are comparable with each other. It may be valuable to utilize CBCT scans for condylar measurements especially for complex oral rehabilitations. Still, further studies with much larger sample sizes are needed with Condylar Guidance angle values to confirm the present results.