A guide for Bucco-lingual Position of Posterior

Teeth Arrangement in Complete Dentures

Original Article (Anatomy)


1. Asstt. Prof. of Prosthodontics, LUM&HS, Jamshoro

2. Asstt. Prof. of Maxillofacial Surgery, LUM&HS, Jamshoro

3. Asstt. Prof. of Maxillofacial Surgery, LUM&HS, Jamshoro
ABSTRACT

Objective: To see the relationship between intercondylar distance and the maxillary & mandibular intermolar distances in dental students.

Study Design: Cross-sectional comparative study

Place and Duration of Study: This study was conducted at Institute of Dentistry, Liaquat University of Medical and Health Sciences Jamshoro/Hyderabad, from August 2009 to January 2010.

Materials and Methods: One hundred fully dentate BDS students with age ranging from 21 to 25 years, free from facial and dental deformities were examined. Upper and lower arch impressions were taken using stock trays. Dental cast were made using dental stone type IV. Vernier Caliper was used to measure the linear distances between mesiobuccal cusp tips of the maxillary & mandibular 1st molars on the cast. Intercondylar distance was measured using arbitrary face bow (Hanau-H2) at rest position. Fork was attached to the teeth with silicone impression material.

Hing axis marks were made 13 mm anterior to the upper border on the tragus canthus lines on both sides of the face. The mark was confirmed by placing the middle fingers of both hands over the marks & students were advised to open & close the jaw by 20mm, the tactile sensation of rotating condyle confirmed the hinge axis location. The face bow was assembled by inserting the fork intraorally & placing the condylar rods over the hinge axis marks. Thereafter, face bow is removed from the face without changing the position of condylar rods & the distance between the two condylar rods was measured in millimeters with the help of Vernier Caliper. Every distance was measured three times to ensure the accuracy and mean taken.

Results: The statistically significant result of this study proved that the highest correlation was found between the intercondylar distance & Maxillary Intermolar Distance \((r = 0.261, p = 0.009)\), while the lowest correlation was found between Intercondylar Distance and Mandibular Intermolar Distance \((r = 0.202, P=0.04)\).

Conclusion: The observed relationship between the intercondylar and Maxillary Intermolar
Distance could prove a useful guide for the buccolingual position of artificial posterior teeth in edentulous patients.

**Key Words:** Esthetics, Complete denture, Edentulous, Tooth arrangement.

**REFERENCES**


2. Fish E. Principles of Full Denture Prosthesis. 7th Ed. London: Staple Press,Ltd;1948


A guide for Bucco-lingual Position of Posterior Teeth Arrangement in Complete Dentures

1956;6:450-64.


15. Shaikh IH, Qamar K, Naeem S. Relationship of the inter condylar distance with maxillary


Address for Corresponding Author:

Dr. Aamir Mehmood Butt

Assistant professor & Incharge,
Department of Prosthodontics,

Liaquat University of Medical & Health Sciences, Jamshoro

e-mail: aamirdentist@yahoo.com

Contact# 03009371044