Computer Vision Techniques To Compare Accuracy Of Surgical Guides In Achieving Implant Parallism In Edentulous Mandible

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By

Aliaa Hamouda A.Aziz El-mahmoudy

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Supervisors

Prof. Dr. Nadia Ahmed Abbas

Professor of Prosthodontics

Faculty of Oral and Dental Medicine

Cairo University

Dr. Amal Mahmoud Ibrahim

Assistant Professor of Prosthodontics

Faculty of Oral and Dental Medicine

Cairo University

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Dedication

I dedicate this work to

My Parents
My Brother& My Sister

For their love, support and encouragement over the years

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Abstract

Purpose:

To compare accuracy of different types of surgical guides to achieve parallelism between two implants placed between mental foramina in completely edentulous patients utilizing computer vision techniques.

Materials and methods:

An acrylic resin complete denture was made to facilitate the fabrication of different types of surgical guides.

Results:

CAD/CAM and base plate surgical guides were the most accurate.

Conclusion:

all the types that were used in this study achieved accepted range of inclination in the frontal, lateral and occlusal views. CAD/CAM and base plate surgical guides showed the best result in the occlusal view and considered the most accurate types in achieving implant parallelism in edentulous mandible.

Key words:

Positioning guides, Diagnostic guides, Dual purpose guide, Surgical guide, Implant alignment, Stereolithographic surgical guide.