Clinical Evaluation Of The Effect Of Two Resilient Attachments Retaining Mandibular Over-denture Supported By Implant And Natural Tooth On The Supporting Structure

Thesis Submitted to Faculty of Dentistry,
Ain Shams University

for Partial Fulfillment of the Requirements
of Doctor Degree in Removable Prosthodontics

By

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2018

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

"سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ

الْعَلِيمُ الْحَكِيمُ ۝ "

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DEDICATION

This study is dedicated to my parents, my daughter and specially my wife who have provided me love, support and motivation throughout my life.

ACKNOWLEDGMENTS

In the beginning, I want to thank God for helping me and answering my prayers, without God I would not have accomplished my work.

I would like to express my sincere appreciation to ***Prof. Dr. Hany Eid*** who helped me a lot by his ideas and supporting. He guided me to the right path from the beginning to the end of my paper. I appreciate the effort you exerted and the time you spent with me. Thank you.

I would also like to thank ***Ass. Prof. Dr. Noha Helmy*** for the information and advice she provided for me. Your assistance has been valuable to me during the process of writing my research till finishing it. I am grateful for what you have done for me.

I would also like to thank ***Ass. Prof. Dr. Yasser Shawky*** for his valuable guidance. I am grateful for all what you have done for me.

I would also like to thank ***Prof. Dr. Marwa Ezzat*** for her encouragement throughout my academic program.

I am also highly appreciative to the entire section of Removable Prosthodontics in **Misr International University**, especially ***Prof. Dr. Eman El Taftazany,*** for her support throughout my academic program. I want to thank you for your effort, time and support you provided for me.

Lastly, my sincere appreciation goes to ***Prof. Dr. Farida El Rashidy*** for her valuable guidance and motivation.

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Introduction

Complete edentulism, which is defined as the loss of all teeth, is a condition that is most prevalent in the elderly and has a negative impact on masticatory function and quality of life.

In the past, conventional dentures have been the primary treatment choice for the rehabilitation of completely edentulous patients. Although the majority of patients are satisfied with this treatment, many have difficulty adjusting to wearing dentures or are dissatisfied with them. Patients report problems such as difficulties with mastication, pain, and discomfort associated with wearing their dentures. These factors are important to consider since it has been reported that poor oral health and function is directly related to a lower overall quality of life.

Many elderly patients exhibit a highly reduced dentition with regard to number of teeth lost due to periodontal disease or caries. In these cases fabrication of fixed prostheses becomes impossible.

An over-denture, defined as a removable partial or complete denture that covers and rests on one or more remaining natural teeth, roots, and/or dental implants is a viable option

Over-dentures have certain advantages including the conservation of natural teeth and concomitant reduction or slowing of residual ridge atrophy. Stability and support of the over-denture also are better in comparison with a conventional

complete denture. In addition, sensory feedback of the periodontal receptors is maintained and masticatory performance may be enhanced.

The osseointegrated implant has broadened the treatment options that are available to edentulous patients. Implant-supported and implant-retained prostheses have quickly become more widely available and are used as an alternative therapy to complete conventional dentures. Patients report positive outcomes regarding masticatory satisfaction and quality of life after receiving implant-retained prostheses.

Implant supporting complete over denture could be used for support and/ or retention. Retention could be achieved either by stud attachment (ball and socket or magnet) or by bar attachment.

Single standing tooth is a very difficult situation to be used as an over-denture abutment due to the excessive stresses concentration which leads to torque on the natural tooth beside lack of bilateral stabilization which may cause tooth mobility and so short serviceability. One of the ideal solutions for such situation is to use an implant on the other side for cross arch stabilization and support.

The question is whether to splint the implant to the already existed natural abutment by bar with its clip or with soft lining material concerning the effect on abutment periodontal condition and implant supporting structure?