

University of Dental Medicine, Yangon

**A STUDY ON CLINICAL EFFICACY OF
MESIALLY PLACED BILATERAL IMPLANT-
RETAINED REMOVABLE PARTIAL DENTURES
IN
MAXILLARY KENNEDY CLASS I PATIENTS**

Thesis submitted
in partial fulfillment of the requirements
for the degree of
Doctor of Dental Science (Prosthodontics)

by

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B.D.S.,M.D.Sc.

2015

Abstract

Nowadays, because of the advance in knowledge and technology, people are saving more teeth and the completely edentulous population diminishes. Consequently, dental treatment for partially edentulous patients is becoming more significant. Among these partially edentulous cases, Kennedy class I tooth-tissue supported prostheses present more challenge to oral tissues and patient adaptation than do the tooth-supported prostheses especially long free-end cases. Common complaints associated with the Kennedy class I removable partial denture situations are minimum retention and stability, impaired masticatory performance, unesthetic retentive clasping, requirements of abutment teeth preparation and discomfort during function. Since the dental implant treatment has become one of the mainstream treatment modalities, the incorporation of the implant-supported fixed partial denture in prosthodontics offers oral functional and esthetic improvements compared to the conventional removable partial dentures. However, there are many cases where anatomic and financial limitations hinder placement of sufficient number of implants to support the prosthesis. In order to provide the patient benefits from dental implant treatment, alternative options to place minimum implants that can retain the removable partial denture efficiently should be considered. This study was conducted to evaluate the clinical efficacy of strategically placed implant-retained removable partial dentures compared with conventional

removable partial dentures. In this study, total twelve patients with Kennedy class I partially edentulous maxillary arch distal to anterior teeth were treated with conventional partial dentures and the clinical efficacy concerning retention and stability, denture base movement, masticatory performance and patient satisfaction level were assessed after 4 weeks of denture delivery. After data collection, two one-piece implants were placed adjacent to distal-most abutment teeth bilaterally and the clinical efficacies were assessed at 4 weeks after loading period and compared with those of conventional partial dentures. The results confirmed that bilateral implant-retained removable partial dentures significantly improved in retention, stability, base movement, masticatory performance and the level of patient satisfaction. Therefore, it was demonstrated that mesially placed bilateral implant-retained removable partial dentures offer oral functional and esthetic improvement and would be an effective alternative treatment option.