

## **Single Versus Two Dental Implants Retained Mandibular Over Dentures: Comparison of Function, Patient Satisfaction, Oral Health-Related Quality of Life and Success of Treatment**

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An implant-retained/supported prosthesis provides greater stability and retention, improved chewing forces with higher patient satisfaction than a conventional denture. Objective of the study was to compare the effectiveness of prosthetic rehabilitation of edentulous patients with single median dental implant retained over dentures with those retained by two dental implants in the canine or first premolar region. Completely edentulous patients who presented to the Department of Prosthetic Dentistry, Faculty of Dental Sciences, University of Peradeniya were selected for the study. All patients who were randomly selected for a single implant or 2 implants retained mandibular overdentures after assessment. Surgical implant placement and prosthetic procedures were carried out. Patients were reviewed at 3 months, 6 months and 1 year and outcome was assessed by the clinician (retention, stability, support of the overdenture and success of the implant), by the patient (self-administered questionnaires), oral health related quality of life using OHIP-14 scale, and patient satisfaction with the prosthesis using a questionnaire. Data were analyzed using Minitab. Patient comfort, esthetics, chewing, speech, general satisfaction, denture retention, stability and support with 2-implant and 1-implant retained overdentures had been significantly increased than conventional dentures ( $p < 0.05$ ) at 3, 6 months, and 1 year review. Further, OHIP-14 scale showed statistically significant improved oral health related quality of life with single and 2 implant retained dentures when compared with conventional dentures. However, when the 2-implant and single implant retained dentures were compared, a significant difference was observed only with patient comfort at 3 months review. In conclusion, single and 2 implant retained overdentures improve outcome assessed by the patient and clinician and oral health related quality of life of the individual than conventional complete dentures. Single implant retained overdentures can also be considered for improved outcomes in the management of completely edentulous patients.

**Keywords:** Single implant, Two-implant, Overdentures, Implant retained over dentures, OHIP-14, Patient outcomes

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