

Rehabilitation of Edentulous Mandible with 2-implant-retained Overdenture: A Case Report

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Abstract

Introduction: Conventional total prosthesis does not provide retention and stabilization adequately in the prosthetic rehabilitation of advanced resorbed mandible. Implant supported overdentures have some advantages over conventional total prosthesis, such as reduced residual ridge resorption, better stability and retention and improved function. Therefore, implant-retained overdenture has become a reliable, predictable and widely used option in the rehabilitation of edentulous mandible with long-term successful outcomes. The aim of this case report is to present the treatment of edentulous mandible with 2-implant-retained overdenture.

Case Report: 56-year-old, edentulous female patient with hypertension referred to our clinic with complaint of poor chewing ability and retention. During clinical and radiographic evaluation severe bone resorption, especially in the right mandible was observed. According to conical beam computed tomography scan, the mandibular anterior region was suitable for implantation. After prosthetic consultation, two implants were planned to insert in order to support locator-retained mandibular overdenture. During implant surgery, two implants (Straumann SLA, Institut Straumann AG, Basel, Switzerland) were placed in the anterior part of mandible (canine regions) after full thickness flap was elevated. After 3 months of osseointegration period, healing caps were fitted, and the patient was referred to the department of prosthodontics for prosthetic structure. The patient was asked to visit after prosthetic superstructure had been installed and then annually.

Discussion & Conclusion: At recall visits, clinical and radiographic evaluation was conducted to assess marginal bone loss and peri-implant clinical parameters. The patient had no complaint of retention and stability and was satisfied with better chewing performance.

It seems that over a 3-year observation period, implant-retained overdentures can offer a predictable, pleasing and cost-effective long-term solution for edentulous patients.

Keywords: Implant, overdenture, total prosthesis.