

The Immediate Implant-Supported Fixed Restoration using Conversion Prosthesis in Severely Resorbed Mandible

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The conversion prosthesis is a transitional fixed implant-supported prosthesis immediately following the placement of fixtures or abutments at implant surgery. This technique permits stable function and the advantages of a fixed prosthesis. The conversion prosthesis is dependent on well-fabricated transitional dentures that provide the patient with the desirable occlusal vertical dimension, esthetics, and phonetics, as well as lip and perioral muscle support.

The use of a conversion prosthesis is a concept of prosthetic management following implant surgery that helps promote patient comfort and acceptance. It provides a fixed dentition immediately following fixtures installation or abutments connection, thereby eliminating the need for additional surgery or components such as healing abutments, healing caps, and soft liners. Its stability provides improved functional ability and allows the patient to preview the function and esthetics of a fixed implant-supported prosthesis.

Previous study have suggested that immediate coronal stability of joined implants reduces the potential rotation effect on the implants when compared to those not joined. The conversion prosthesis provides a more uniform load distribution to the implants through firm splinting.

Although the combined surgical and prosthetic procedure creates a lengthy treatment session, it reduces the overall number of treatment visits.

The purpose of this study case is to present successful application of the conversion prosthesis process for the patient with a severely resorbed mandible, at second stage surgery.

After wearing the prosthesis, the patient was satisfied in the aspect of mastication, retention and stability. In addition, much advantages of the restoration include following : it provides a fixed prosthesis immediately following second stage surgery with improved function and distribution of load ; it protects the sutured mucosa ; it serves as a prototype for the final prosthesis ; it can be used as a verification jig ; it preserves th original vertical dimension of occlusion ; it aids in transferring the interocclusal record ; and it reduces treatment visits.

For the measurement of implant stability, resonance frequency analysis(RFA) was performed at the time of fixture installation and loading periods. All RFA values showed a adequate stability.