

Efficacy of HA-coated One-piece Implants on the Graftless Procedure of Immediate and Early Implant Placement for the Anterior Maxilla

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Abstract

Introduction: Inadequate alveolar bone volume is a common limitation in the anterior maxilla since bone resorption takes place soon after tooth extraction. Such problems have been overcome by bone grafting or GBR. But they are invasive procedures and need long treatment period.

Purpose: The aim of this study was to evaluate the efficacy of HA-coated one piece implants on the graftless procedure of immediate and early implant placement for the anterior maxilla.

Materials and methods: Thirty patients, 22 males and 8 females, 27 to 67 years of age, were included in this study. Thirty-four hydroxyapatite-coated one-piece implants (AQB implant®, ADVANCE, Co. Japan) were placed immediately or early within 8 weeks after falling teeth had been removed. All implants were placed and positioned slightly to the palatal aspect, with the exposed implant surface clearly inside the alveolar crest. Some of them left craterlike defect on the facial aspect of the implant. In cases bone chips were collected from the implant bed during drilling, they were placed on the facial aspect of the implant. No donor site was prepared. No membrane and filling materials were used. Following items were investigated. 1) Sex and age distribution, 2) Location of implants inserted, 3) Diameter and length of implants used, 4) Duration from tooth extraction to implant placement, 5) Duration of healing period from implant placement up to addition of occlusal force. The survey was carried from January 2005 through February 2013.

Results: All 34 implants were functionally loaded and showed no sign of morbidity and periimplant disease.

Conclusion: HA-coated one piece implants were found to be effective on the graftless procedure of immediate and early implant placement for the anterior maxilla.