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Early Loading of Osseotite Implants 2 Months After Placement in the Maxilla and Mandible: A 5-year Report

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**Purpose:** In this multicenter study, the performance of Osseotite implants after a 1-stage surgery and abbreviated healing period of 2 months is reported. The implants were followed for up to 5 years.

**Materials and Methods:** Partially or completely edentulous patients treated at 10 private practice centers were included in the study. Oral hygiene was assessed using the plaque index and the gingival index prior to surgery and at recall visits at 6 months, 1, 2, 3, 4, and 5 years after initial loading. Bone density and implant/bone fit were evaluated at the time of surgery. Implants were loaded after a healing period of about 2 months.

**Results:** The mean age of the patients at time of enrollment was  $60.4 \pm 13.0$  years; 44% (86) of the patients were men and 56% (109) were women. In all, 526 implants were placed, 65.4% in the mandible and 34.6% in the maxilla, with 23.0% placed in anterior locations and 77.0% in the posterior. The cumulative success rate of these 526 implants was 97.9% at 5 years. Eight of the 11 implant failures occurred during nonsubmerged healing prior to prosthetic loading. Provisional restorations were placed at  $2.1 \pm 0.5$  months, at which time implants were evaluated for mobility, gingival health, symptomology, and radiolucency. The distribution of prosthesis types included 118 single-tooth restorations (118 implants), 134 short-span prostheses (327 implants), and 16 long-span restorations (81 implants).

**Discussion:** The benefits of early loading cannot be fully appreciated if there is a substantive increase in implant failures. In this study, a cumulative success rate greater than 97% was maintained throughout 5 years of observation.

**Conclusion:** These results suggest that success can be expected with Osseotite implants after a nonsubmerged reduced healing period of 2 months in this patient population. *Int J Oral Maxillofac Implants* 2005;20:905–912

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