Purpose: The purpose of this study was to assess the survival rates and interproximal bone levels for Osseotite implants that were restored with fixed provisional crowns without occlusion immediately after implant placement.

Materials and Methods: Ninety-three implants were placed in 38 partially edentulous patients. All implants were immediately restored with prefabricated abutments and cement-retained provisional crowns without centric or eccentric occlusal contacts. The implants were restored with definitive restorations approximately 8 to 12 weeks after implant placement. All patients included in the study were followed for at least 18 months after implant placement (average 20.3 months).

Results: Seventy-seven of the 93 implants satisfied the inclusion criteria. Seventy-five implants became osseointegrated. The overall survival rate was 97.4%. Radiographic bone loss 18 months after implant placement (the mean of both interproximal surfaces) was 0.76 mm. The exact binomial confidence interval was 0.32% to 9.07%. For the exact binomial test with the null hypothesis proportion = .05, P was .3334 and was not statistically significant.

Discussion: Immediate nonocclusal loading of single-unit dental implants differs from immediate loading of multiple, splinted implants. Unsplinted, restored implants without occlusal loading may still be subject to lateral and occlusal loads secondary to the proximate location of the food bolus. Immediate restoration of dental implants significantly reduces treatment time and may be beneficial in reducing the morbidity associated with loss of teeth, contraction of the alveolus, and loss of interdental papillae associated with the traditional method of treatment following tooth loss.

Conclusions: The results of this study suggest that immediate restoration of Osseotite implants can be accomplished with results that are similar to the results obtained with the traditional 1- or 2-stage surgical, unloaded healing protocols. INT J ORAL MAXILLOFAC IMPLANTS 2004;19:534–541

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