

Immediate Occlusal Loading of Osseotite Implants in the Completely Edentulous Mandible

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Purpose: This article reports the preliminary data from a clinical study of immediately loaded, full-arch, screw-retained prosthesis with distal extensions (hybrid prosthesis) supported by Osseotite implants placed in the edentulous mandible. **Materials and Methods:** Fifteen patients who received 103 implants were enrolled in this study. The first 2 patients received both immediately loaded and submerged implants, while the remaining patients had all implants immediately loaded. The first 9 patients received a temporary prosthesis within 4 hours of surgery, and the hybrid prosthesis, made of a titanium framework and acrylic resin teeth, was placed after 6 months. The last 6 patients received the same type of hybrid prosthesis within 36 hours of surgery. Marginal bone loss was monitored via periapical radiographs by a computerized technique. **Results:** One failure (out of the 92 immediately loaded implants) occurred after 3 weeks of function because of infection. A cumulative success rate of 98.9% was achieved for up to 48 months of follow-up, while the prosthetic cumulative success rate for the same period was 100%. Marginal bone loss at the immediately loaded implants was within the generally accepted conventional limits for standard delayed loading protocols. **Discussion:** This technique can reduce treatment time but should be applied with caution. **Conclusion:** The preliminary results of this study suggest that rehabilitation of the edentulous mandible by an immediately loaded hybrid prosthesis supported by 5 to 6 implants may represent a viable alternative treatment to the classical delayed loading protocols. INT J ORAL MAXILLOFAC IMPLANTS 2003;18(4):544–551.