

Immediate versus delayed functional loading of implants in the posterior mandible: a 2-year prospective clinical study of 12 consecutive cases.

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Abstract

The aim of this investigation was to evaluate the clinical success of immediately loaded implants versus implants loaded in a delayed fashion in the posterior mandible. Three implants were placed distal to the canines bilaterally in the edentulous distal mandibular ridges of 12 patients. One side was randomly selected for placement of three implants (delayed loading; control sites) with a progressive thread design for submerged healing, and after 3 months the implants were exposed and loaded with provisional splinted crowns, which were replaced 6 weeks later by the definitive restorations. Three additional implants (immediately loaded; test sites), of the same size were placed in the contralateral side of the mandible. The test implants had abutments placed and were loaded immediately using the same protocol as the control implants. After a mean loading period of 25.3 months, the patients showed normal mean clinical values without significant differences ($P < 0.05$) for test and control implants, respectively, as follows: Plaque Index: 0.4 versus 0.8; Sulcus Bleeding Index: 0.5 versus 0.3; probing pocket depth: 1.9 mm versus 2.1 mm; width of keratinized mucosa: 2.5 mm versus 3.3 mm; Periotest value: -3.7 versus -3.2. Twenty-nine of the examined sites showed no bone loss. After 2 years of loading in the posterior mandible, test and control implants had the same prognosis.

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