

Immediate Versus Conventional Loading of Complete-Arch Implant-Supported Prostheses in Mandibles with Failing Dentition: A Patient-Centered Controlled Prospective Study

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Purpose: The aim of this study was to compare, from the patients' perspective, immediate and conventional loading of fixed complete-arch prostheses to rehabilitate mandibles with failing dentition. **Materials and Methods:** This controlled, prospective, nonrandomized study included 36 consecutive patients: 18 treated with conventional loading (control) and 18 with immediate loading (test). Patient general satisfaction and specific satisfaction with esthetics, chewing, speaking, comfort, self-esteem, ease of cleaning, and treatment duration were evaluated using 10-cm visual analog scales before treatment and 3 and 12 months after treatment. Postoperative pain and swelling were monitored daily for 1 week. Statistical analysis was performed applying Mann-Whitney and Wilcoxon tests ($\alpha = .05$). **Results:** Between baseline and 3 months, satisfaction in the test group increased significantly with the exception of speech; in the control group, satisfaction increased significantly for esthetics and decreased significantly for speech, chewing, and comfort, but did not vary for general satisfaction or self-esteem. After 3 months, satisfaction was significantly higher in the test group with the exception of ease of cleaning. Between 3 and 12 months, satisfaction improved in both groups but more so in the control group, so that after 12 months there were no differences. The test group showed lower mean pain, which began after the third day postsurgery. Mean swelling and maximum pain/swelling did not show significant differences at any point. **Conclusions:** Patient satisfaction was reported as significantly higher with immediate loading. However, at the end of the observation periods, reported functional differences had disappeared. Significant differences were only noted for postoperative pain after the third day. *Int J Prosthodont* 2015;28:499–508. doi: 10.11607/ijp.3951

Edentulism seriously compromises oral function and esthetics and has a profound negative impact on quality of life, even for those individuals who apparently cope well with dentures.^{1,2} For these patients,

dental implants can rehabilitate the stomatognathic apparatus with predictable outcomes,³ improving quality of life, particularly in relation to the mandible.⁴ However, the classic protocols in implant dentistry recommend that initially implants should remain unloaded to ensure osseointegration. For this reason, a conventional denture is the only prosthetic possibility during the first few months following surgery.^{5,6} Even though patients are advised in advance that denture use is only temporary, patient acceptance, adaptation, and satisfaction can be difficult to achieve.^{7,8}

An alternative approach—immediate loading (IL)—is defined as the establishment of occlusal contacts within the first 48 hours after implant insertion. IL has become increasingly popular and is now in common use.⁹ Many studies have reported favorable results using IL with provisional fixed complete-arch prostheses, supported by both immediately and nonimmediately placed implants.^{10–15} While the outcomes of this therapy have been assessed mainly in terms of implant

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