

Immediate loading using cross-arch fixed restorations in heavy smokers: nine consecutive case reports for edentulous arches.

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Abstract

PURPOSE: Immediate loading of oral implants has been extensively documented in different clinical indications, but no studies on heavy smokers have been reported. The aim of this study was to evaluate the long-term success and the peri-implant soft and hard tissue conditions around immediately occlusal loaded implants in edentulous jaws of heavy smokers.

MATERIALS AND METHODS: Implants (progressive thread design and platform switching) were connected with their abutments and splinted immediately after surgery using cross-arch fixed temporary restorations. Provisional fixed prostheses had centric occlusal contacts and group function in the lateral movements of the mandible (immediate occlusal loading). Patients were advised to adhere to a soft diet for the first 6 to 8 weeks of healing to reduce excessive loading in the bone-implant interface. The definitive restorations were delivered 4 to 8 weeks after surgery and cemented temporarily to evaluate the peri-implant soft tissue condition after removal of the restoration. Clinical and radiographic indices were evaluated at the start of loading and at 3-month intervals after loading.

RESULTS: After a mean loading period of 33.7 +/- 19.0 months (range, 6 to 66 months), 1 implant was mobile. All clinical indices had values in normal ranges. The Periotest values decreased with time, indicating increased security of implants in bone. Crestal bone level was stable, with only 2 sites presenting minimal vertical bone loss and 6 presenting minimal horizontal bone loss. In all other sites no bone loss was observed. Results of this study demonstrated a long-term success (98.6%) of immediately loaded implants placed in occlusal function in smokers restored with fixed cross-arch implant-supported restorations.

CONCLUSIONS: This study showed that immediate loading of oral implants may be successful in heavy smokers under some circumstances.

PMID: 18700376 [PubMed - indexed for MEDLINE]