

Early loading of root form and conical implants with a sandblasted large-grit acid-etched surface: A 6-year clinical follow-up

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_Abstract

Aim of the retrospective study was to investigate the success rate of Camlog implants loaded after a reduced healing period. Within the study, 464 implants (411 Camlog Root-Line®, 53 Camlog Screw-Line®) were placed in 102 patients (55 male and 47 female patients) with an average age of 61 years; the implants were allowed to heal post insertion for a period of six weeks (mandible) and 12 weeks (maxilla) prior to loading. The patients were recalled in regular intervals and implant success was determined based on the criteria of D. Buser within the parameters of a standardized recall programme. A 6-year survival rate of 99.6% for all implants was calculated, 99.8% of Root-Line and 98.1% of Screw-Line implants were considered successful. Two implants (1 Camlog Root-Line, 1 Camlog Screw-Line) had to be removed prior to loading. All other implants fulfilled the success criteria. The results indicate that a reduction of the healing period to six respectively twelve weeks for Promote®-coated implants does not seem to have a disadvantageous effect on the success rate.

Fig. 1_ Individually fabricated bar on seven Camlog Root-Line implants after four years in function.

Fig. 2_ The bar-retained prosthesis which has not required maintenance in this period.

_Introduction

In recent years, successful implantation was determined and correlated with various factors relating to the dental implant. The raw material for implant manufacturing affects the result: using titanium enhances bone-to-implant contact¹, new potential materials are currently being evaluated.²

Furthermore, the roughness of implant surfaces is a decisive factor for intensification and acceleration of healing processes after insertion.³ As a consequence of these findings, a large number of implants with diversely configured surfaces were introduced into the market: implants with machined, additively (TPS) and ablatively (SLA, Promote, TiUnite®) processed surfaces. Research concentrated on analyzing their advantages and disadvantages. Several studies have shown a predominance of SLA surfaces in cell adhesion and biological healing in contrast to differently conditioned surfaces.^{4,5}

Analog to the conditioning of SLA surfaces, Camlog implants are macrostructured by sandblasting with resulting cavities having a diameter from 20 to



Fig. 1



Fig. 2