

POSTERIOR MAXILLARY IMPLANTS INSERTED WITH BICORTICAL ANCHORAGE AND PLACED IN IMMEDIATE FUNCTION FOR PARTIAL OR COMPLETE EDENTULOUS REHABILITATIONS. A RETROSPECTIVE CLINICAL STUDY WITH A MEDIAN FOLLOW-UP OF 7 YEARS

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PURPOSE

The aim of this study was to report the outcome of posterior maxillary implants inserted with “bicortical anchorage” in medium or low-density bone and placed in immediate function for the rehabilitation of patients with partial or complete edentulism.

METHODS

Eighty-eight patients (32 males and 56 females, mean age=54 years; range 28–78 years) were included from October 1999 to November 2008, and followed between 6 months and 13 years (median of 7 years). A total of 124 posterior maxillary implants were inserted with bicortical anchorage (engaging the cortical plates of the maxillary crest along with that of either the sinus or nasal cavities) as follows: MkII (n=1), MkIII (n=6), MkIV (n=18), and NobelSpeedy Groovy (n=99); (Nobel Biocare AB). Implants were evaluated on the basis of survival, marginal bone levels, and complications (mechanical and biological).

RESULTS

Eleven patients dropped out of the study (12.5 %). Four implants were lost in four patients who underwent complete edentulous rehabilitations, yielding a cumulative survival rate of 94.2 % after a median follow-up of 7 years. The survival rate for the prostheses was 100 %. The marginal bone levels were on average 1.56 mm (standard deviation of 0.87 mm), after 5-years of follow-up. Biological complications occurred with 17 implants in 17 patients. Mechanical complications occurred in 49/88 patients. Thirty of these 49 patients were heavy bruxers.

CONCLUSIONS

Within the limitations of this study, fixed prosthetic rehabilitations for partial and complete edentulismo supported by implants in the posterior maxilla which are inserted with bicortical anchorage and placed in immediate function is a viable concept on long-term follow-up. Nevertheless, controlling the occlusion is mandatory in order to decrease the likelihood of mechanical complications.