

Immediate fixed rehabilitation supported by pterygoid implants for participants with severe maxillary atrophy: 1-Year postloading results from a prospective cohort study.

Luca Signorini, DDS - Fabio Faustini, DDS - Rawad Samarani, DDS - Tommaso Grandi, DDS
Published: July 03, 2020

Abstract

Statement of problem

Few investigations concerning the use of pterygoid implants have reported reproducible and consistent data, making survival data controversial.

Purpose

The purpose of this clinical study was to investigate the 1-year survival and success rates of pterygoid implants and prostheses in participants affected by severe atrophy of the posterior maxilla requiring a complete-arch immediate fixed prosthesis.

Material and methods

Fifteen participants, either completely edentulous or with failing dentition in the maxillary arch and with severe atrophy of the posterior maxilla, were enrolled in the study. All participants underwent prosthodontic rehabilitation after implant placement in both the anterior maxilla areas and the pterygoid regions. The survival data of the implants were evaluated at the time of abutment connection by means of a mobility test for each implant. After placement of the prostheses, survival was assessed by means of marginal bone maintenance as assessed by panoramic radiographs and the absence of pain or symptoms of infection. The *t* test was used for evaluating the difference in age between men and women ($\alpha=.05$). Correlations between categorical variables (Fisher exact test) were used to evaluate the possible association between the number of implants and both the age and presence of comorbidities ($\alpha=.05$).

Results

During the 1-year follow-up, high prosthesis stability and no implant loss were observed for all participants. In addition, participants did not report any pain or paresthesia. No peri-implant radiolucency was detected in the panoramic radiographs. Survival and success rates in the follow-up period were 100%.

Conclusions

The present study supports the conclusion that pterygoid implants have a high success rate with minimal or no complications.