

THE NOBELGUIDE® ALL-ON-4® TREATMENT CONCEPT FOR REHABILITATION OF EDENTULOUS JAWS: A PROSPECTIVE REPORT ON MEDIUM- AND LONG-TERM OUTCOMES

Lopes A, Maló P, De Araújo Nobre M, Sanchez-Fernández E

BACKGROUND

There is a need for long-term studies on complete edentulous flapless rehabilitations.

PURPOSE

This study aimed to evaluate the long-term outcomes of the rehabilitation of completely edentulous jaws for immediate function with the All-on-4® treatment concept using a computer-guided surgical protocol (NobelGuide®, Nobel Biocare, Göteborg, Sweden).

MATERIALS AND METHODS

This prospective clinical study included 23 totally edentulous patients rehabilitated between February 2005 and May 2006 with 92 implants with the All-on-4 treatment concept using NobelGuide. Outcome measures were implant survival, marginal bone loss at 1, 3, and 5 years, and the incidence of mechanical and biological complications. Survival was calculated using life-table analysis.

RESULTS

Two dropouts occurred. The cumulative implant survival rate was 96.6% at 5 years of follow-up. Prosthetic survival was 100%. The average marginal bone loss was 1.7 mm (standard deviation 1.4 mm) at 1 year, 1.7 mm (standard deviation 0.9 mm) at 3 years, and 1.9 mm (standard deviation 1.1 mm) at 5 years. Seven patients experienced fracture of the definitive prosthesis (6 patients were heavy bruxers), and abutment screw loosening occurred in 2 patients. Two implants in 2 patients showed peri-implant pathology.

CONCLUSIONS

Within the limitations of this study, it is possible to conclude that this treatment modality for completely edentulous jaws is safe and predictable with good long-term outcomes.

KEYWORDS

Fixed implant prosthesis, flapless implant surgery, immediate function