Immediate Temporization of NobelReplace Conical Connection Implants, 1-year Follow-up

Russell A. Baer[1] Alessandro Pozzi[2], Alexandra Behneke[3], Guido Heydecke[4], Edward Gottesman[5], Robert Nölken[6], Werner Zechner[7], Snjezana Colic[8]

[1] University Associates in Dentistry, Chicago, USA
[2] University of Rome Tor Vergata, Rome, Italy
[3] University Medical Center of Johannes Gutenberg University Mainz, Mainz, Germany
[4] University Medical Center Hamburg-Eppendorf, Hamburg, Germany
[5] Private Practice, New York, USA
[6] Private Practice, Lindau, Germany
[7] Bernhard Gottlieb University Clinic of Dentistry, Vienna, Austria
[8] University of Belgrade, Belgrade, Serbia

ABSTRACT

Objective: The study aim was to evaluate the NobelReplace conical connection implants in healed sites of the anterior maxilla.

Methods: Patients requiring a single tooth implant supported restoration were treated**.** Implants were placed using a 1-stage procedure and immediately temporized, having met the stability inclusion criteria. The definitive prosthesis was delivered within 6 months of implant insertion. Follow-ups are ongoing and will continue up to 5 years. Cumulative survival and success rates were reported using the Altman and Van Steenberghe methods. Assessed soft tissues responses included peri-implant mucosa status (bleeding on probing), Mombelli's modified plaque index and Jemt's papilla index. Patient assessed quality of life (QoL) was reported using the Oral Health Impact Profile (OHIP 14).

Results: Eight centres are participating in this study. Eighty-seven implants have been placed in anterior maxillary healed sites of 82 patients. Seventy-four patients with 77 implants have received the definitive prosthesis. At this interim follow-up, 71 patients with 73 implants completed the 6 month visit, and 57 patients with 59 implants the 1-year visit. One implant failure occurred at 1.5 months, prior to definitive prosthesis delivery. The cumulative survival and the cumulative success rates were 98.9%. Healthy peri-implant mucosa was observed in 88% and 86% and no visible plaque in 77% and 81% of implants at the 6 month and 1 year visits, respectively. Jemt's papilla scores significantly improved from prosthetic delivery to the 1 year visit ($p<0.001$). QoL improved significantly from pre-treatment to the 1 year visit ($p<0.001$).

Conclusions: High survival and success rates indicate that the conical connection implant is a clinically safe and reliable treatment option. The NobelReplace conical connection implant has the ability to support soft tissue health and improve QoL in patients with rehabilitated healed sites of the anterior maxilla.

Acknowledgement: Nobel Biocare Services AG has supported this study (Study code: T-179)