CLINICAL OUTCOME OF A TWO-PIECE IMPLANT SYSTEM WITH AN INTERNAL HEXAGONAL CONNECTION: A PROSPECTIVE STUDY

M. ANDREASI BASSI¹, M. A. LOPEZ¹, L. CONFALONE¹, R. M. GAUDIO², L. LOMBARDO³ and D. LAURITANO⁴

¹Private practice, Rome, Italy; ²Department of Medical Sciences, University of Ferrara, Ferrara, Italy; ³Department of Biomedical Sciences and Specialist Surgeries, University of Ferrara, Ferrara, Italy; ⁴Department of Medicine and Surgery, University of Milan-Bicocca, Milan, Italy

The purpose of this prospective clinical study was to evaluate the survival rate (SVR - i.e. fixtures still in place at the end of the observation period) and success rate (SCR - i.e. bone resorption around implant neck) of an implant system characterized by cylindrical and tapered implants, both provided with an internal hexagonal connection. In the period between January 1996 and October 2011, 52 implants with internal hexagonal connection were inserted in 21 females and 31 males, mean age 54±11 years. The mean post-surgical follow-up was 44.6±34.4 months. Several parameters were evaluated as potential outcome conditioners: age, gender, smoking, replaced tooth, periodontal disease, fixture shape (i.e. cylindrical or tapered), jaw location (i.e. maxilla or mandible), bone graft, immediate loading, post-extractive placement, type of prosthesis (i.e. single crown or bridge), edentulism, implant diameter and length. An SPSS statistical program was used and Cox regression analysis performed. SVR was 100% since no fixtures were lost. SCR, expressed through the mean marginal bone loss, was 77%. No significant differences were found, for most of the parameters analyzed, with the exception of prosthetic bridges, where implants supporting this type of rehabilitation showed a worse clinical outcome in comparison to single crown rehabilitations. Internal hexagonal connection is a reliable tool for oral rehabilitation.