One-Year Results of a Clinical and Radiological Prospective Multicenter Study on NEOSS® Dental Implants

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ABSTRACT

Background: NEOSS® (Neoss Ltd., Harrogate, UK) dental implant system was introduced on the clinical arena in 2003. It is important that novel implant systems are systematically evaluated in a multicenter setting.

Purpose: The aim of this study was to follow a large number of consecutively treated patients, with NEOSS dental implant system, both clinically and radiographically. The current report constitutes the 1-year data of a planned 5-year study.

Materials and Methods: The study included a total of 177 patients treated with 590 NEOSS implants at 13 clinics in Sweden. The material was composed of 72 males and 105 females treated for single, partial, and total edentulism. Clinical, radiographic, and subjective evaluations were performed.

Results: Out of 590 implants, 13 early failures have been reported, corresponding to a 1-year cumulative survival rate (CSR) of 97.8%. Evaluation of function and esthetics at the 1-year visit resulted in 100% success for function and 98% success for the esthetic outcome. The mean marginal bone loss was 0.6 mm (SD 1.1) after 1 year in clinical function. No adverse effects of the NEOSS dental implants were reported, and complications were few and similar to those reported for implant treatment in general.

Conclusion: The CSR in the present study was 97.8%. No adverse effects of the NEOSS implants were reported, and complications during the study period were few and similar to those reported to for other well-documented implants system. Based on the present data, we conclude that NEOSS dental implant is a safe and predictable implant system. However, the high number of dropouts in the radiological evaluation must be considered when interpreting the data.

KEY WORDS: dental implants, osseointegration, prospective multicenter study