

Title: Clinical outcome of implant placed in grafted maxillary sinus using rhBMP-2: A 5-year follow-up study

Jin-Ho Lee, Jang-Ho Son

University of Ulsan Hospital, South Korea

Received Date: March 15, 2023 Accepted Date: March 17, 2023 Published Date: May24, 2023

Purpose: The aim of this study was to investigate the 5-year outcome of dental implants placed in a grafted maxillary sinus using recombinant human bone morphogenetic protein-2 (rhBMP-2).

Materials and Methods: We retrospectively analyzed 27 implants after maxillary sinus floor augmentation (MSFA) using rhBMP-2 in 16 patients from January 2016 to March 2017. The outcome variables were 1) 5-year cumulative survival and success rate of the implant after functional loading, 2) marginal bone loss. Through the medical records and radiographic images, patient demographic information, surgical site, residual bone height (RBH), implant length and diameter, bone graft material, healing period prior to loading, condition of the opposite dentition, prosthesis type, and crown-to-implant ratio were analyzed.

Results: The average RBH was 4.78 ± 1.53 mm. The healing period prior to loading was 8.35 ± 2.34 months. The crown-to-implant ratio was 1.31 ± 0.26 . The 5-year cumulative survival and success rate after functional loading were 100% and 96.3% respectively. The average marginal bone loss was 0.89 ± 0.82 mm. One implant did not meet the implant success criteria, where the marginal bone loss was 2.53mm.

Conclusion: The placement of dental implants with MSFA using rhBMP-2 is a reliable procedure in terms of long-term survival and success rate.

Biography

Jin-Ho Lee graduated from Pusan National University Dental College in South Korea and is in a resident course at Ulsan National University Hospital after completing an internship at Pusan National University Dental Hospital.