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UV Functionalised Short Implants as an Alternative to Avoid Crestal Sinus Lift Procedure: Controlled Case Series

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Abstract : Purpose:The study was to evaluate the survival rate of short implants (5-6 mm) functionalized with UV radiation placed in the posterior segments of the atrophied maxilla. Materials and Methods:The study included 47 patients with unilateral/bilateral missing teeth and vertical atrophy of the posterior maxillary area. A total of 64 short UV-functionalized implants and 62 standard implants over 10 mm in length were placed in patients. The clinical indices included the following parameters: ISQБ MBL, OHIP-G scale. Results: For short implants, the median ISQ at placement was 62.2 for primary stability, and the median ISQ at 5 months was 69.6 ISQ. For standart implant, the mean ISQ at placement was 64.3 ISQ, and ISQ after 5 months was 71.6 ISQ. After 6 months mean MBL short implants 0.87 mm, after 1 year, 1.13 mm, after 5 year was 1.48 mm. After 6 months, mean MBL standard implants 0.84 mm, after 1 year, 1.24 mm, after 5 year was 1.58 mm. Mean OHIP-G scores -patients satisfaction with the implant at 4.8 ± 0.3, satisfaction with the operation 4.6 ± 0.4; satisfaction with prosthetics 4.7 ± 0.5. Cumulative 5-year short implants rates was 96.7%, standard implants was 97.4%, and prosthesis cumulative survival rate was 97.2%. Conclusions: Short implants with ultraviolet functionalization for prosthetic rehabilitation of the posterior resorbed maxilla region is a reliable, reasonable alternative to sinus lift, demonstrating fewer complications, satisfactory survival of a 5-year follow-up period, and reducing the number of additional surgical interventions and postoperative complications.

Keywords : short implant, ultraviolet functionalization, atrophic posterior maxilla, prosthodontic rehabilitation
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