

Hybrid Full-Arch Rehabilitation Using Conventional And Zygomatic Implants: A Short-Term Retrospective Analysis

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ABSTRACT

Objectives: To report one-year outcomes of prosthetic rehabilitation of the atrophic maxillae, supported by angled abutments on zygomatic implants and conventional implants. *Methods:* In the present retrospective analysis, edentulous maxillary areas treated with fixed-hybrid prostheses supported by angled abutments of 45, 52.5, and 60 degrees screwed to zygomatic implants inserted using an extrasinus surgical approach were included. Prosthesis, implant, and abutment success/survival rates, complications, Mucosal Seal Efficacy Evaluation (MSEE), modified PLaque Index (mPLI), modified Bleeding Index (mBI), and Zygomatic Implants Classification Level (ZICL) were assessed. *Results:* Ninety-eight straight implants and 81 zygomatic implants (21 abutments of 45 degrees, 23 of 52.5 degrees, and 37 of 60 degrees) were inserted into 35 patients. *Biological complications:* postoperative sinus opacity was observed in seven patients, two of whom experienced a unilateral perforation of the sinus membrane. ZICLO-1 was recorded in 95% of zygomatic sites; the cumulative success rates were 100% and 94.3% when using the implant and prosthesis as units of analysis, respectively. *Conclusion:* Survival rate for the implants attested to the highest percentage (100%), whereas survival rate of the prostheses was 94.3%. No differences were registered among the clinical indices related to different inclinations of the abutments.

INTRODUCTION

Since it may be very difficult to rehabilitate atrophic maxillae by means of implant placement without augmentation procedures, clinicians recognize that zygomatic implant placement is a demanding yet fast and reliable surgical method for treatment of the severe maxillary atrophy.¹ Taking into account the local anatomy of the maxilla and the dimensions of the sinus cavity, many strategies have been suggested for rehabilitating maxillary edentulous patients, i.e., using “quad” zygomatic implant-supported prostheses (two per quadrant), full-arch prostheses supported by both axial and tilted implants, or hybrid prostheses supported by a combination of conventional implants and zygomatic fixtures (one per quadrant) in single or bilateral configuration.^{2,3}

When compared to conventional dental implants, zygomatic implants seem to have a higher incidence of biological complications, such as gingival hyperplasia and hypertrophy, and bleeding on probing during patient recall

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