

IMMEDIATE FIXED REHABILITATION OF SEVERE MAXILLARY ATROPHY USING EXTRASINUS ZYGOMATIC IMPLANTS: ONE-YEAR RESULTS FROM A PROSPECTIVE COHORT STUDY



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PURPOSE. The aim of the present study was to evaluate the one-year post-loading clinical outcomes of extrasinus zygomatic implants placed in immediate function in patients with severe atrophy of the posterior maxilla.

MATERIALS AND METHODS. Twenty-four fully edentulous patients, or with failing dentition in the maxilla and severe atrophy of the posterior maxilla (15 female and 9 male), ranging in age from 48 to 77 years (mean = 62.6 years) were treated with 48 zygomatic implants and 69 standard implants. Patients had less than 4 mm of available bone height and width in the premolar area. All patients received two zygomatic implants and two to four conventional implants. All zygomatic implants had a diameter of 3.9 mm. Eleven 45-degree abutments, thirty-one 52.5-degree abutments and six 60-degree abutments were connected to the zygomatic implants. Outcome measures were implant and prosthesis failure, complications, modified plaque index (mPLI), modified bleeding index (mBI) and mucosal seal efficacy evaluation (MSEE) scores.

RESULTS. No dropouts occurred up to one-year post-loading. Two anterior conventional implants failed in one patient after eight months. No zygomatic implant failed. Mechanical complications occurred in five patients (20.8%), and biological complications in seven patients (29.2%). All complications were successfully resolved. The median mPLI was 1, with no patient reaching a value of 3. In the majority of patients the mBI was 0, with no patient having values of 2 or 3. The incidence of MSEE >4 mm at 1-year follow-up was 12.5%.

CONCLUSIONS. One-year results indicate that extrasinus zygomatic implants loaded immediately can be considered a viable option for fixed prosthetic rehabilitation in cases of extremely atrophic edentulous maxilla.

CONFLICT OF INTEREST STATEMENT

Tommaso Grandi serves as a consultant for JDentalCare, Modena, Italy. However, this study was completely self-financed, and no funding was either sought or obtained, not even in the form of free materials.

INTRODUCTION

Edentulism leads to the loss of masticatory function, and to the progressive resorption of alveolar bone, with consequent modifications of hard and soft tissues that profoundly affect the facial appearance¹². In this scenario, treatment with implant-supported prostheses may be challenging. Indeed, in patients with atrophic maxilla, the placement of conventional endosseous implants is often difficult, or even impossible, due to lack of bone necessary for implant osseointegration.