



Postextractive implants in aesthetic areas: evaluation of perimplant bone remodeling over time

DEHISCENCES AND FENESTRATIONS

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ABSTRACT

As some Authors have indicated that the immediate placement could offer many advantages, including time saving, the aim of this research was the evaluation of the peri-implant bone remodelling of post-extractive implants over two years. Thirty patients, requiring teeth extractions due to root fractures, destructive caries or endodontic failures, were enrolled for the study. All patients were treated with the same surgical technique, with atraumatic extraction, curettage of extraction socket and implant insertion. Implants (Sweden Martina, Due Carrare, Padova, Italy) were inserted placing the shoulder edge 1 mm deeper the cortical margin of palatal plate and the residual gaps were filled and slightly condensed with collagenated cortico-cancellous porcine bone (OsteoBiol® mp3®, Tecnos®, Giaveno, Italy). A trimmed collagen membrane (OsteoBiol® Evolution, Tecnos®) was used to completely cover the socket. A temporary adhesive bridge, with an adequate profile, was bonded to the adjacent teeth and three months after surgery the final prosthetic restoration was delivered. No complications were recorded during the healing period. Bone loss was measured using the radiographs taken at 0, 12 and 24 months after implant insertion and bone changes were measured at the mesial and distal peri-implant sites, and their average values were calculated using the distance between cortical edge and the fixture abutment junction. The values obtained at time 0 and at 2 years were compared by test t-student.

CONCLUSIONS

The results showed that after one year 73% of patient had 0 mm of bone reabsorption, 20% of patient had $0\text{mm} \leq x \leq 0.5\text{mm}$, 7% of patient had $0.5\text{mm} \leq x \leq 2\text{mm}$ of bone reabsorption. After two years 62% of patient had 0 mm of bone reabsorption, 24% had $0\text{mm} \leq x \leq 0.5\text{mm}$, 14% had $0.5\text{mm} \leq x \leq 2\text{mm}$. Within the limits of this study, the results showed no significant differences in bone reabsorption in most patients over 2 years.

MM Figliuzzi¹
A Giudice¹
MG Cristofaro¹
D Pacifico¹
P Biamonte¹
L Fortunato¹

¹ | Department of Periodontics and Oral Sciences,
University "Magna Graecia" Catanzaro, Italy

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