

SCIENTIFIC ABSTRACTS

INTERNATIONAL PUBLICATIONS ON OSTEOBIOL® BIOMATERIALS

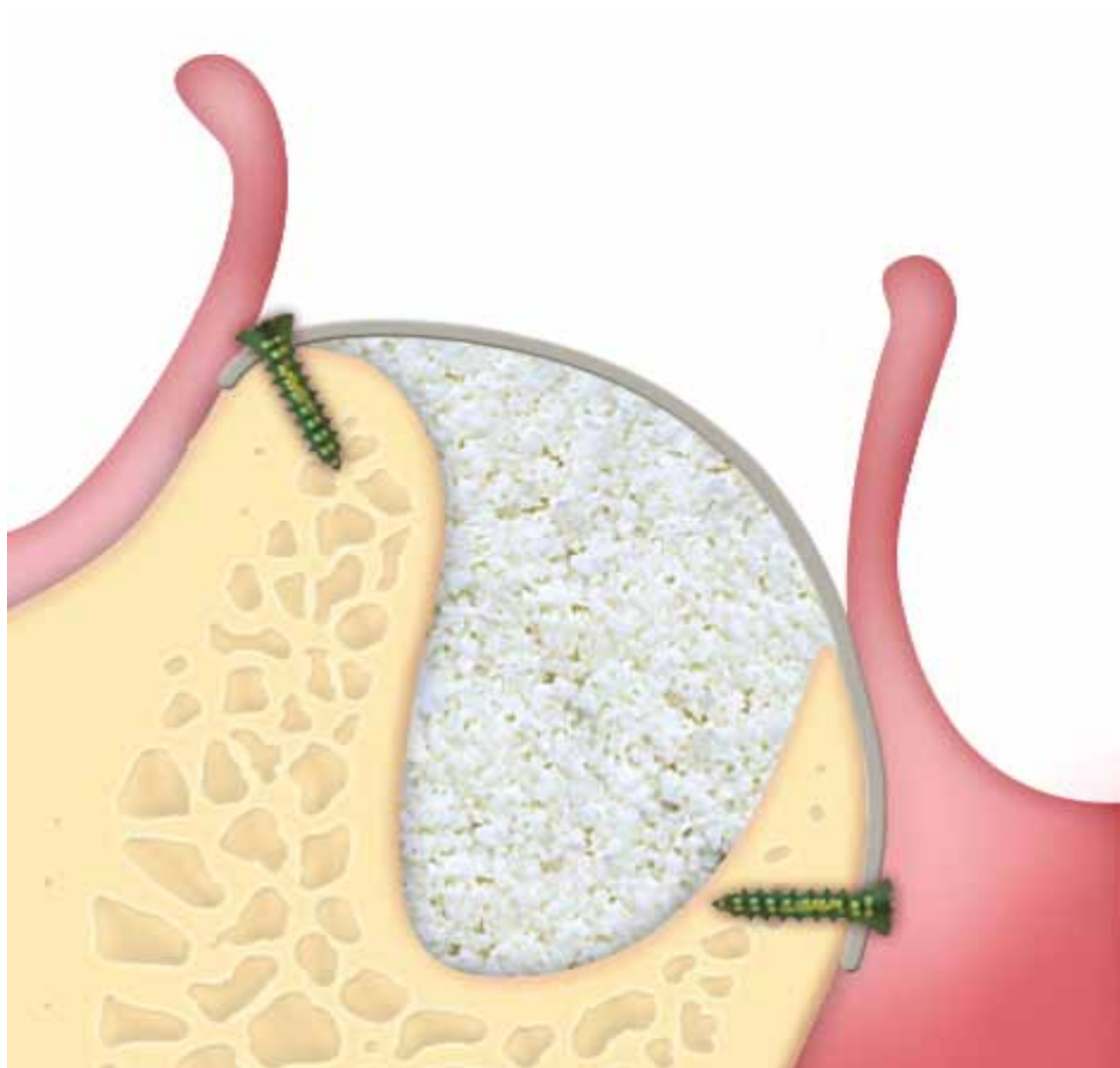
OsteoBiol®
by Tecnos

REGENERATION SCIENCE

INSPIRED BY NATURE



Horizontal augmentation



OsteoBiol[®]
by TecnoSS

REGENERATION SCIENCE

INSPIRED BY NATURE



HORIZONTAL AUGMENTATION

081

A Scarano¹
G Murmura¹
B Sinjari²
B Assenza³
V Sollazzo⁴
G Spinelli⁵
F Carinci⁶

1 | Dental School, University of Chieti-Pescara, Italy
2 | Department of Oral Science, Nano and
Biotechnology University of Chieti-Pescara
3 | Private Practice, Milano, Italy
4 | Orthopedic Clinic, University of Ferrara, Ferrara,
Italy
5 | Section of Maxillo-Facial Surgery, Careggi
Hospital, Firenze, Italy
6 | Department of D.M.C.C.C., Section of
Maxillofacial and Plastic Surgery, University of
Ferrara, Ferrara, Italy

ORIGINAL ARTICLE

International Journal of Immunopathology
and Pharmacology
2011 Apr-Jun; 24(2 Suppl):71-5

Grafted with

BONE SUBSTITUTE
OsteoBiol® Gen-Os®

Expansion of the alveolar bone crest with ultrasonic surgery device: clinical study in mandible

ABSTRACT

It is well known that after a tooth extraction the consequent horizontal bone resorption makes difficult to perform an ideal implant placement. In particular, the presence of atrophic alveolar crests measuring less than 3 mm in width puts much more limitations to the placement of implants, making the complementary use of bone grafts necessary.

In this study, the Authors show the application of the split-crest mandibular procedure in two stage in order to avoid the cortical bone resorption of the alveolar crest.

Twenty-two healthy patients were included in this study and subjected to a sagittal corticotomy in the coronal area of the alveolar crest and a second sagittal corticotomy, but in a lower (basal) position and two vertical corticotomies in the buccal wall, using an ultrasonic surgery device (Surgysonic, Esacrom, Imola, Italy). After a proper crest expansion by means of a combination of scalpel, thin chisels and threaded osteotomes (Bone System, Milano, Italy), two submerged implants (Bone System, Milano, Italy) were placed in the premolar and molar area. The gap within the sockets was filled by particles of cortico-cancellous porcine bone (Gen-Os®, OsteoBiol®, Tecnos®, Giaveno, Italy). Postoperative results were assessed by panoramic and periapical radiographs.

CONCLUSIONS

The postoperative course was uneventful in twenty-one of the twenty-two patients. Three months after implants insertion, ossification of the osteotomy lines was evident, with a mean horizontal bone increase in coronal area of 5 ± 3 mm. No dehiscence of the mucosa was observed and the mucosa on the lingual and buccal side over the augmentation sites appeared unaffected in all patients.

The conclusion of the Authors is that *"mandibular ridge expansion using a split-crest technique that included grafting the implant sites with a ultrasonic surgery device is a viable therapeutic alternative for implant placement in this patient population"*.

Delayed expansion of the atrophic mandible by ultrasonic surgery: a clinical and histologic case series

ABSTRACT

In this paper the Authors present a human case series with clinical and histologic results about delayed expansion of mandibles by ultrasonic surgery. 32 patients with residual alveolar ridge width between 2,3 and 4,1mm in the coronal area of the posterior mandible were included in the study in order to be subjected to the intended ridge expansion treatment. After achieving a proper bone expansion, two submerged implants (Bone System) per ridge were inserted in the premolar and molar areas, meanwhile the gaps were filled with cortico-cancellous porcine biomaterial (OsteoBiol® Gen-Os®, Tecnos®, Giaveno, Italy). Three months after implant placement, bone cores were harvested from the regenerated areas for histologic analysis and a histomorphometric analysis was performed in order to determine the percentages of newly formed bone, grafted material and marrow spaces.

At three months, the implant success rate was 96,88% and the mean increase in ridge width was $5,17 \pm 0,86$ mm. Clinically, the intercortical bony gap seemed to be filled with newly formed bone. The histologic specimens showed a mixture of new bone and particles of biomaterial and the histomorphometric analysis showed $64 \pm 3,1\%$ of the specimen was composed of newly formed bone, $8 \pm 0,8\%$ was made up of marrow spaces, and $27 \pm 2,6\%$ comprised the residual grafted biomaterial.

CONCLUSIONS

Even if further long-term studies are needed to evaluate the findings of this study, it is possible to conclude that mandibular ridge expansion using a delayed split-crest technique by means of ultrasonic surgery and association with a biomaterial can be helpful in setting the adequate environment for implant placement.

HORIZONTAL AUGMENTATION

082

A Scarano¹
A Piattelli¹
G Murmura¹
G Iezzi¹
B Assenza²
C Mancino¹

1 | Dental School, University of Chieti- Pescara, Chieti, Italy
2 | Private Practice, Milano, Italy

ORIGINAL ARTICLE

International Journal of Oral and
Maxillofacial Implants
2015 Jan-Feb;30(1):144-9

Grafted with

BONE SUBSTITUTE
OsteoBiol® Gen-Os®