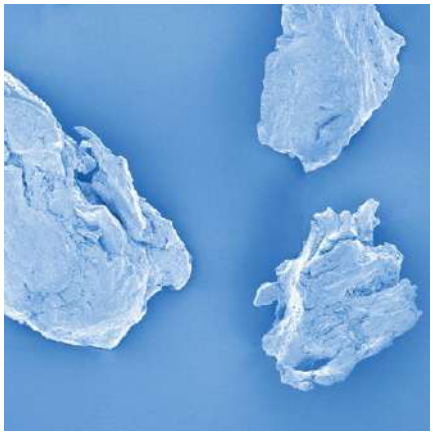
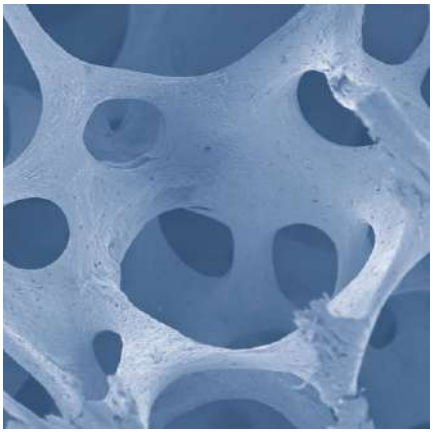
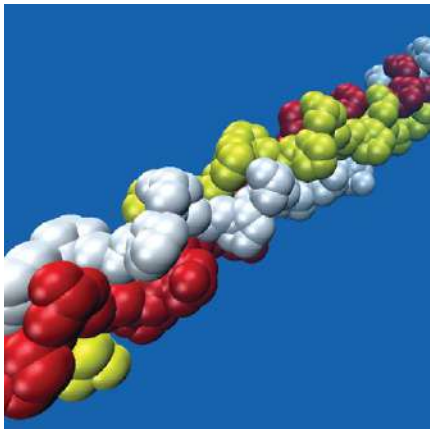
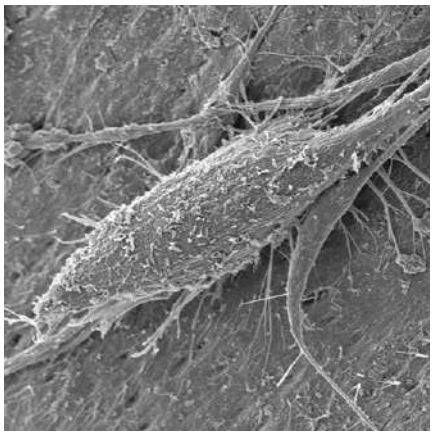
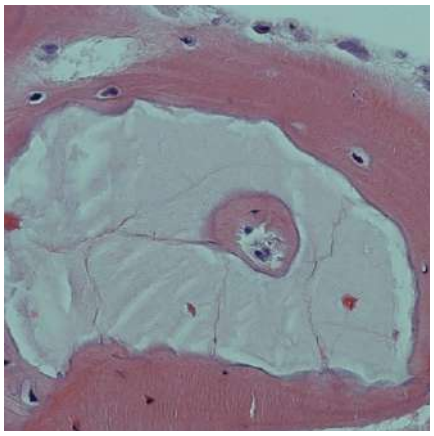







SCIENTIFIC ABSTRACTS

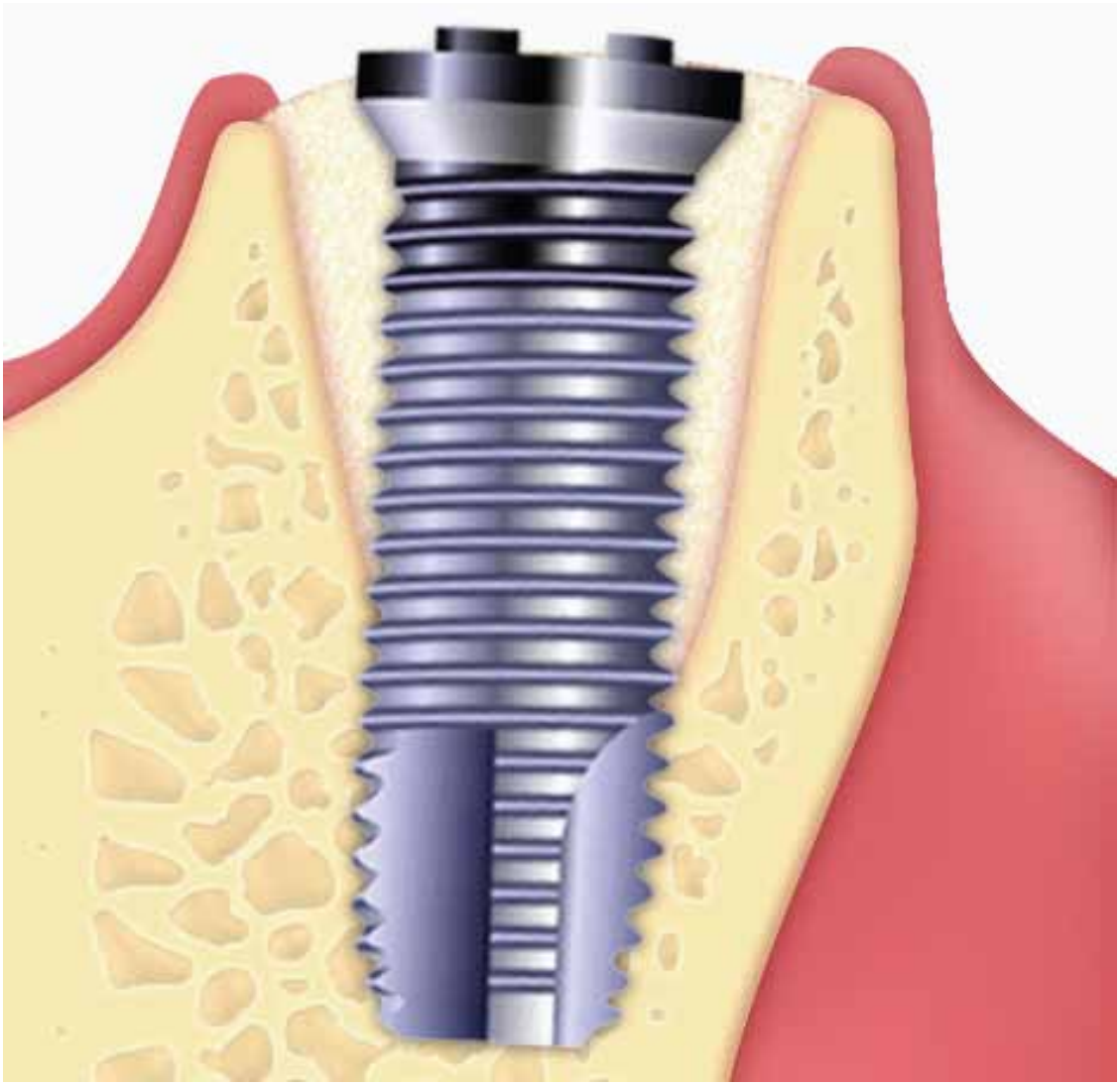
INTERNATIONAL PUBLICATIONS ON OSTEOBIOL® BIOMATERIALS

OsteoBiol® by Tecnoss

REGENERATION SCIENCE

INSPIRED BY NATURE

Dehiscencias y fenestraciones



OsteoBiol®
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REGENERATION SCIENCE

INSPIRED BY NATURE

OsteoBiol® by Tecnoss

Clinical outcome of implants placed immediately after implant removal

U Covani[1]
S Marconcini[1]
R Crespi[1]
A Barone[1]

ABSTRACT

This article reports the clinical success of an implant placed immediately after the explantation of a fractured blade implant due to a fracture caused by biomechanical complications. A healthy 58-year-old male nonsmoker presented with a fractured blade implant that had been subjected to biomechanical overload. A gentle explantation was performed, and a new implant of the same shape was immediately placed. The peri-implant bone defect was grafted with a mixture of collagen gel and cortico-cancellous porcine bone (OsteoBiol® *mp3*®, Tecnoss®, Giaveno, Italy) and covered with a bioabsorbable membrane (OsteoBiol® *Evolution*, Tecnoss®).
Radiographic evaluation at 6 months after the treatment showed complete bone healing. No residual bone defect was observed or probed during the uncovering phase; moreover, no mobility, pain, suppuration, or presence of peri-implant radiolucency were observed at the second-stage surgery.

CONCLUSIONS

When an implant fails, it must be immediately removed. In case of a new implant placed in a fresh extraction socket, if the contact implant-bone is not ideal or portion of the implant wall is exposed because of a dehiscence in the bone, guided tissue regeneration techniques can be employed using barrier membranes with or without bone graft materials.
The present case report demonstrated the successful immediate replacement of a failed blade implant with a new implant of the same shape in the same location in combination with a graft material and a membrane.

1 | School of Dental Medicine, University of Genoa, Italy

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Journal of Oral Implantology
2009;35(4):189-95

OsteoBiol® by Tecnoss

Surgical reconstruction of peri-implant bone defects with prehydrated and collagenated porcine bone and collagen barriers: case presentations

C Slotte[1]
N Lindfors[2]
U Nannmark[3]

ABSTRACT

One of the main concern related to implant treatment is the peri-implant bone loss mainly due to infection. Over the years, various techniques have been proposed in order to solve this problem and barrier technique has been shown to reduce defect depth in case presentations. Some reports have shown enhanced outcome with a combination of barriers and autogenous bone grafts in animal experiments as well as in humans. In this case report, the aim of the Authors was to evaluate the healing capacity of PCPB material in the surgical reconstruction of long-standing chronically infected peri-implant defects. To do so, PCPB particles (OsteoBiol® *mp3*®, Tecnoss®, Giaveno, Italy - granulometry: 600-1000 μm) were used as defect-filling material, combined with a bioresorbable collagen barrier (Bio-Gide®, Geistlich AG, Wolhusen, Switzerland) to cover the defects and the implanted bone mineral. In this case study, three patients enrolled for treatment of advanced peri-implant infection and bone loss around one or more implants participated. After local anesthesia and the preparation of the target sites, OsteoBiol® *mp3*® was applied into the defects. The Bio-Gide® barriers were adjusted and placed to cover defects and implants. After 6 and 12 months of healing, clinical and radiographic examinations were done. All defects healed uneventfully. At 6 months, probing depths were reduced by 3-4 mm with no bleeding on probing or pus formation. At 12 months, healthy peri-implant conditions were found. Intra-oral radiographs showed gain of the marginal bone level by 2-4 mm.

CONCLUSIONS

The results of this study show that PCPB have favorable properties enhancing bone regeneration in peri-implant bone defects. In contrast to other xenogenic materials, PCPB seems to activate the Bone Metabolic Units (BMU) by triggering phagocytosis of the graft material and subsequently favor deposition of new matrix and subsequent mineralization. After discussing the results, the Authors concluded that *"the encouraging treatment outcome of reconstructive surgery found here is based on three cases and must consequently be considered with caution. However, it can still serve as a promising topic for future short- and long-term studies"*.

1 | Department of Periodontology, Institute for Postgraduate Dental Education, Jönköping, Sweden
2 | Department of Oral and Maxillofacial Radiology, Institute for Postgraduate Dental Education, Jönköping, Sweden, and Department of Biomaterials, Institute for Clinical Sciences, Sahlgrenska Academy, Gothenburg University, Göteborg, Sweden
3 | Department of Medical Biochemistry and Cell Biology, Institute of Biomedicine, Sahlgrenska Academy, Gothenburg University, Göteborg, Sweden

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Clinical Implant Dentistry and Related Research
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DEHISCENCES AND FENESTRATIONS

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Clinical outcomes of implants placed in extraction sockets and immediately restored: a 7-year single-cohort prospective study

A Barone[1,2,3]
S Marconcini[4,5]
E Giammarinaro[5]
E Mijiritsky[6]
F Gelpi[7]
U Covani[4,5]

1 | Department of Surgery, University of Geneve, Switzerland
2 | Department of Oral and Maxillofacial Surgery, SUNY at Buffalo, Buffalo, USA
3 | Department of Periodontology, SUNY at Stony Brook, Stony Brook (New York), USA
4 | Department of Surgical, Medical and Molecular Pathology, University of Pisa, Italy
5 | Tuscan Dental Institute, Foundation for Clinic, Research and Continuing Education in Dentistry
6 | University of Tel Aviv
7 | Private practitioner, Verona, Italy

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ABSTRACT

It has been widely demonstrated that after tooth extraction an irreversible process of alveolar ridge volume loss takes place, with horizontal and vertical dimensional changes in both arches. Even if it has proven to be a predictable treatment strategy with a very high success rate, implant placement into fresh alveolar socket does not seem to alter the resorption changes that naturally occur after tooth extraction. Therefore, the aim of the present 7-year prospective single cohort study was to evaluate the success rate, marginal bone level (MBL), soft tissue stability of implants placed in fresh extraction sockets and immediately restored. A total of 32 patients (19 women and 13 men) with at least one tooth in need of extraction and of immediate implant restoration were enrolled in this study. The mean age of the present cohort group was 40.1 ± 13.3 with a range between 23 and 63 years.
Patients received immediate implants and immediate single restorations. The peri-implant bone defects between the implant surface and bone walls were grafted with cortico-cancellous porcine bone particles (OsteoBiol® *mp3*®, Tecnoss®, Giaveno, Italy) and the graft was stabilized by means of a resorbable membrane (OsteoBiol® *Evolution*, Tecnoss®). The parameters of the evaluation were: implant failures, complications, MBL, width of keratinized gingiva, facial soft tissue (FST) levels, modified Plaque Index and modified Bleeding Index.

CONCLUSIONS

The purpose of the present 7-year prospective single cohort study was to evaluate the success rate and the hard and soft tissues stability of implants placed immediately after tooth extraction and immediately restored. A total of 37 immediate implants were placed with a total cumulative survival rate of 94.6%. All clinical cases were treated with tooth extraction, flapless immediate implant placement, peri-implant gap filling with the use of a cortico-cancellous porcine bone and immediate restoration. Based on these results, the Authors concluded that *"long-term data from the present study suggested that implants placed immediately after tooth extraction and immediately restored had favourable clinical outcomes and stable tissues conditions"*.

OsteoBiol® by Tecnoss

Implant stability in the posterior maxilla: a controlled clinical trial

DEHISCENCES AND FENESTRATIONS

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R Zita Gomes[1]
MR De Vasconcelos[1]
IM Lopes Guerra[1]
RA Borges De Almeida[3]
A Cabral De Campos Felino[1]

1 | Department of Oral Surgery, Faculty of Dental Medicine, University of Porto, Porto, Portugal
2 | Department of Biomaterials, Faculty of Dental Medicine, University of Porto, Porto, Portugal
3 | Mathematics Research Center, Statistics, Modulation and Computer Applications Office, Faculty of Sciences and Mathematics, University of Porto, Porto, Portugal

ABSTRACT

Implant stability plays a fundamental role in the clinical success. Primary stability comes from the mechanical engagement of the fixture with cortical bone and is determined by the quantity and quality of the available bone at implant placement, the surgical procedure and the dimension and design of the fixture. Secondary stability comes from regeneration and remodelling of the bone and tissue around the implant after its insertion and is related to primary stability. The purpose of this controlled clinical trial was to investigate the evolution from primary to secondary stability of dental implants, placed in the human posterior maxilla, in three different groups: patients with native bone, patients with partially regenerated bone, and patients with nearly totally regenerated bone. In all procedures, the grafting heterologous materials used were particulate prehydrated bone (OsteoBiol® *mp3*®, Tecnoss®, Giaveno, Italy) and collagen membranes (OsteoBiol® *Evolution*, Tecnoss®). 133 (Anyridge®, Megagen) implants were installed in 59 patients in the posterior areas of the maxilla. The primary implant stability was measured at placement, by means of insertion torque (IT) and implant stability quotient (ISQ). The evolution from primary to secondary implant stability was studied, by means of ISQ, at different times (15, 30, 45, and 60 days). 52 implants had satisfactory high primary stability (IT ≥ 45 N/cm; ISQ ≥ 60). Significant differences were found for IT and ISQ between the groups (A, B, and C) but no differences between Groups B and C were found. However, no drops were reported in the median ISQ values during the healing period.

CONCLUSIONS

Further, long-term controlled studies are needed to confirm the outcomes emerging from the present work as it presents limitations, such as the limited number of patients treated and fixtures inserted; in particular, only a few implants were inserted in Group C (nearly totally regenerated bone), and this is a major limitation of the present work, since Group C was probably the most interesting to investigate, and it would have been appropriate to have inside it a higher number of fixtures. Anyway, the evaluation of the primary and secondary implant stability may contribute to higher implant survival/success rates in critical areas, such as the regenerated posterior maxilla.

ORIGINAL ARTICLE
Biomed Research International
2017:6825213

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

MM Figliuzzi[1]
A Giudice[1]
MG Cristofaro[1]
D Pacifico[1]
P Biamonte[1]
L Fortunato[1]

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

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 atramautic 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*®, Tecnoss®, Giaveno, Italy). A trimmed collagen membrane (OsteoBiol® *Evolution*, Tecnoss®) 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 0mm ≤x≤ 0.5mm, 7% of patient had 0.5 mm ≤ x ≤ 2 mm of bone reabsorption. After two years 62% of patient had 0 mm of bone reabsorption, 24% had 0 mm ≤ x ≤ 0.5mm, 14% had 0.5 mm ≤ x ≤ 2 mm. Within the limits of this study, the results showed no significant differences in bone reabsorption in most patients over 2 years.

ORIGINAL ARTICLE
Annali di Stomatologia
2015 May 18;6(1):29-34