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INFODENT Special Edition **FDI 2016**

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2016

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DT Study Club, Pavilion 8 Booth C27-C36

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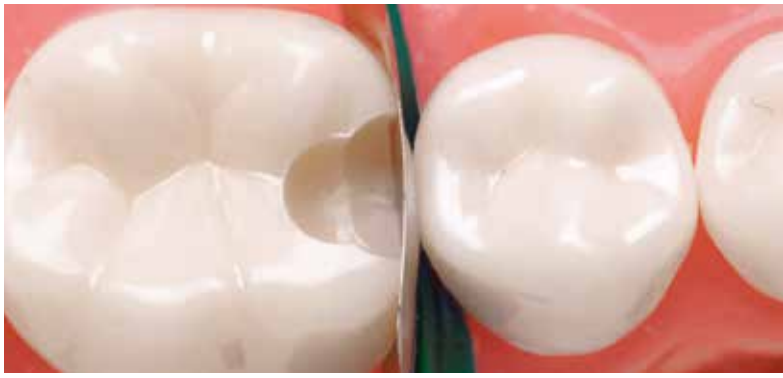

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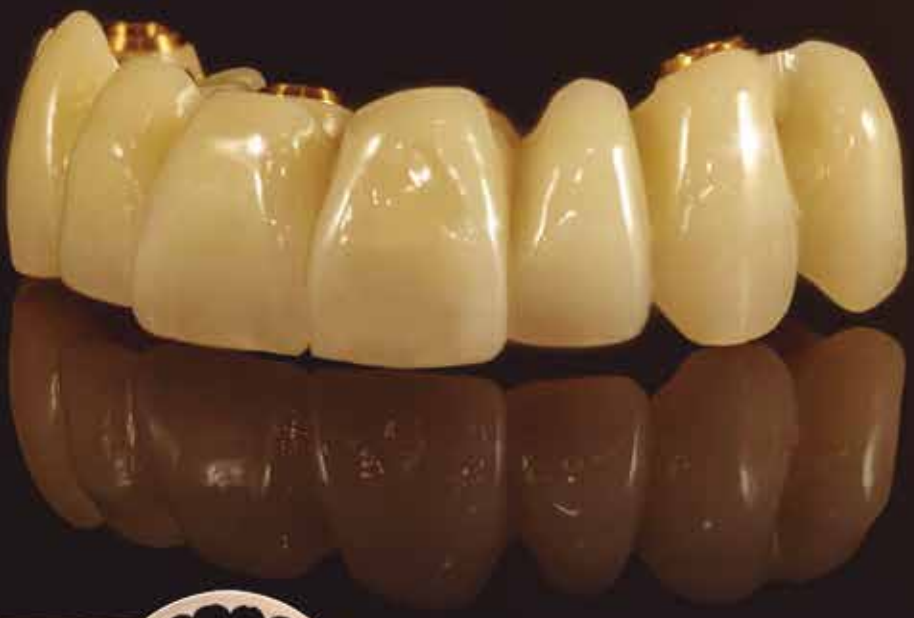

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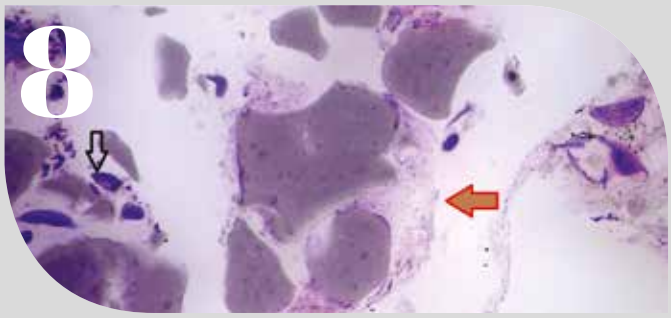
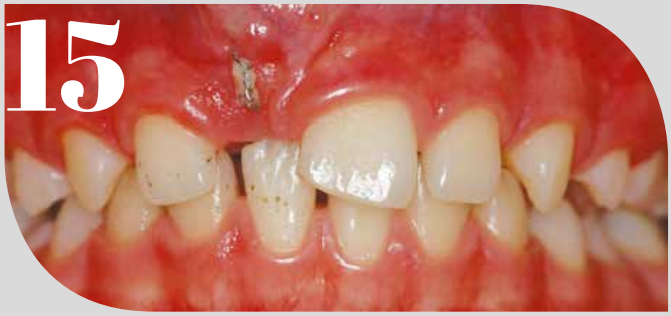


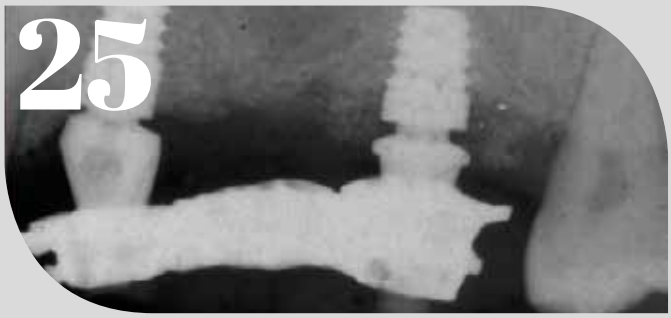
FPOST-EXTRACTION APPLICATION OF BETA-TRICALCIUM PHOSPHATE IN ALVEOLAR SOCKET

"In normal conditions, healthy bone is under continuous remodelling and has an effective self-repair capacity. Bone remodelling maintains a continuous balance of bone formation and resorption in a dynamic process that adapts the bone to local forces…"



MANAGEMENT OF IMPACTED DILACERATED MAXILLARY INCISOR WITH STRATEGIC POSITIONING OF A STRAIGHTWIRE APPLIANCE

"Andreasen et al. [1971] defined dilaceration as the abrupt deviation of the long axis of the crown or root portion of the tooth, which is due to a traumatic non-axial displacement of already formed hard tissue in relation to the developing soft tissue…"



RESOLUTION A COMPLICATION IN GUIDED BONE REGENERATION THROUGH A NOVEL MODEL OF E-PTFE MEMBRANE: A CASE REPORT

"An edentulous site has gained more popularity in modern dentistry. Successful implant placement requires adequate alveolar ridge dimensions, which are essential to install the implant…"

Contents

FDI 2016 Issue

Scientific Update

Exhibition Focus

FDI POZNAN 2016 - 3 WAYS TO DISCOVER THE GREEN CITY

"Fifth biggest city in Poland, crossed by the river Wartha, full of lakes and green corners, Poznan is a great destination that offers several activities to do..."

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Editorial

CHINA, THE PLACE TO BE

After the great feedback from ***"Doctor" by Infodent International*** – our highly scientific publication, in English and Chinese, dedicated to a selected target of Chinese dentists, professors and scientific boards, our focus within this remaining half of the year is still Chinese…

China is the great economic success story of the past 30 years, the world's second-largest economy. Since the "reform and opening-up" policy was introduced in 1978, China has changed beyond recognition. A Soviet-styled planned economy has transformed into a vibrant market-orientated economy and 600 million people have been lifted out of poverty. Between 1985 and 2010, 70% of the world population who had been lifted out of poverty was Chinese!

The first and most important thing anyone hoping to set up a business should do is find a local partner. A local partner will most often be an established Chinese-owned company, or a businessperson with good contacts in the country who can navigate the complicated regulations and legal processes and, most importantly, deal with China's government directly. A good partner is an incorporated company that is about the same size as your firm, at least partly Chinese-owned, and well-connected in the Chinese market.

Infodent has another innovative project that might support your search. Our most unique project is what we are calling the **"Living Magazine"**… You will find that the contents of our Infodent International Magazine are going "live" at the exhibition!

How? We invite you all to visit our booth **(F70-71-96-97, Hall 1) at DenTech China** next October to see, touch and evaluate the products showcased at the booth and published in the magazine through our highlights.

Furthermore a "Distributors' Wall" will be set up at the booth with announcements of dealers and manufacturers looking for new business and contacts within the Chinese market.

Our "live" magazine will be further supported by three conferences organized by the Infodent group:

- **32 Dental Marketing Ideas for Successful Dentists** – by Emanuele Elo Usai, Infodent International Creative Copywriter & Digital Strategist

- **Treatment of Aesthetic and Structural Alterations of the Mucogingival Junction (MGJ)** – with the collaboration of Asadental (Italy) and Dr. Liu Shuangbin

- **CGF (Concentrated Growth Factors) & AFG (Autologous Fibrinogen Glue): Basic Principle and clinical Application** – with the collaboration of Silfradent (Italy) and Prof. Bingzhen Huang M.D. & Ph.D.

China is no longer the Wild West of business that it once was. While the rise of China is easy to acknowledge, businesses constantly need to catch up with the speed and depth of change and development in China's large and complex market space. With our small contribution we really hope to help fulfill the needs of what the industry is looking for!

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Post-extraction application of beta-tricalcium phosphate in alveolar socket

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KEY WORDS
Bone graft; calcium phospare; dental implants; post-extraction alveolar socket.

ABSTRACT

Aim The objective of this study was to assess the capacity of beta-tricalcium phosphate to facilitate bone formation in the socket and prevent post-extraction alveolar resorption.

Materials and methods After premolar extraction in 16 patients, the sockets were filled with beta-tricalcium phosphate. Six months later, during the implant placement surgery, a trephine was used to harvest the bone samples which were processed for histological and histomorphometrical analyses. Data were gathered on patient, clinical, histological and histomorphometric variables at the extraction and implant placement sessions, using data collection forms and pathological reports.

Results Clinical outcomes were satisfactory, the biomaterial was radio-opaque on X-ray. Histological study showed: partial filling with alveolar bone of appropriate maturation and mineralization for the healing time, osteoblastic activity and bone lacunae containing osteocytes. The biomaterial was not completely resorbed at six months.

Conclusion Beta-tricalcium phosphate is a material capable of achieving preservation of the alveolar bone when it is positioned in the immediate post-extraction socket followed by suture; it also helps the formation of new bone in the socket. Further studies are needed comparing this technique with other available biomaterials, with growth factors and with sites where no alveolar preservation techniques are performed.

INTRODUCTION

In normal conditions, healthy bone is under continuous remodelling and has an effective self-repair capacity. Bone remodelling maintains a continuous balance of bone formation and resorption in a dynamic process that adapts the bone to local forces (1). Above a critical defect size, however, bone cannot be repaired by its own osteogenic activity, and some type of bone grafts must be used (2).

Jaw bone defects can be caused by surgical resection, traumatic loss, ossification impairment (in the elderly), periodontal and peri-implant diseases and congenital disorders. These defects may complicate the surgical phase of implant supported rehabilitation treatment due to insufficient bone volume for an adequate implantation (3, 4). Jaw bone loss is frequently caused by post-extraction alveolar resorption, a physiological phenomenon which leads to a reduction of the original height and width of the alveolar ridge to a degree that varies among localizations and patients (5). Alveolar ridge preservation techniques have been developed to address the ensuing clinical problem, especially in aesthetic areas (5). They are conducted during or after extraction and are designed to minimize external ridge resorption and maximize bone formation inside the socket (5). Measures include autologous bone grafts, allografts, bone of animal origin (xenografts) and synthetic bone substitutes (alloplastic grafts), as well as the application of growth factors and gene therapies (3, 4, 6).

Beta-tricalcium phosphate (beta-TCP) is widely used as a biocompatible, resorbable and osteoconductive ceramic substitute to repair bone defects. Thanks to its physicochemical characteristics, it has been successfully used to fill spaces in multiple settings, including biology, veterinary medicine, human medicine and dentistry (7-12). It has also been proposed as a vehicle for growth factors that stimulate bone formation (12, 13). Various authors have reported on its capacity as a biomaterial for bone regeneration in animals and humans (4, 14-21).

The study is aimed at evaluating granular beta-TCP in post-extraction sockets in order to measure its bone regenerative potential and its capacity to preserve the original height and width of the alveolar bone for subsequent implant placement.

Specifically, the study objectives were the following.

1. To analyze the clinical and radiological results obtained after placement of the biomaterial in the post-extraction socket and at the subsequent insertion of dental implants.

2. To assess the effectiveness of beta-TCP as bone

filling material in the post-extraction socket.
3. To perform histological analysis of the amount and quality of bone formed in the dental socket six months after the placement of the biomaterial.
4. To determine the percentage of biomaterial particles in contact with patient bone.

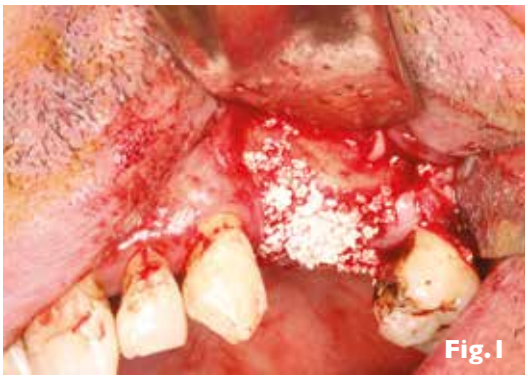
MATERIALS AND METHODS

Study design

This prospective longitudinal observational clinical study complied with the principles of the Helsinki Declaration and was approved by the clinical research ethics committee of the San Carlos Clinical Hospital, Madrid (Spain).
All patients in the study were aged over 18 years and scheduled for ≥ 1 premolar extraction due to periodontal disease, caries or fractures and for subsequent replacement with dental implant(s) up to a maximum of four premolar extractions (one per quadrant) per patient. Exclusion criteria were: failure to sign informed consent or commit to compliance with the study appointment schedule; the presence of endocrine-metabolic disease or chronic, general or local disease; the presence of disease that may be affected by the surgery or by the intraoperative or postoperative medication; alveolar socket wall defects; smoking habit of ≥10 cigarettes/day, due to its relationship with implant failure; and treatment with bisphosphonates or antibiotics during the previous month. Patients were recruited from the School of Dentistry clinic (Complutense University of Madrid, Spain) and private clinics. A non-probabilistic sampling of consecutive cases was conducted and only patients who met the above criteria were included.
Sixteen patients were enrolled in the study between March 2008 and July 2010, with a mean age of 44.3 years (standard deviation: 10.74); seven were male (44%) with mean age of 39.7 years and nine were female (56%) with mean age of 48 years. No participant (0%) was a daily drinker of alcohol, and two (12%) were daily smokers (of 1-9 cigarettes). A total of 19 upper and 2 lower teeth were extracted (lower teeth were excluded from the analysis because of this small number).
After a baseline clinical assessment, all patients received basic periodontal therapy before the surgery and were instructed to maintain good oral hygiene throughout the study.

Surgical procedure

After applying local anaesthesia and performing full- thickness buccal and lingual flap elevation, the premolar was extracted; a full-thickness flap was elevated to enable a subsequent suture to keep the granules of the material in place. Any granulation tissue present in the socket was removed by surgical curettage, and the socket was filled with 0.5 g beta-TCP KeraOs® (Keramat, La Coruña, Spain) mixed with physiological saline solution or blood from the same patient (Fig. 1). The socket was then closed by suture using a coronally repositioned flap (Fig. 2). Patients were instructed to rinse daily for two weeks with 0.12% chlorhexidine digluconate. Sutures were removed at 7-10 days post-extraction.
During the implant placement surgery (about 6 months after biomaterial placement), a bone biopsy was harvested using a trephine (inner diameter of 2.2 mm, outer diameter of 3 mm), placed in a 10% buffered formalin and sent to the Ceramic Institute of Galicia (Santiago de Compostela, Spain) laboratory for processing.



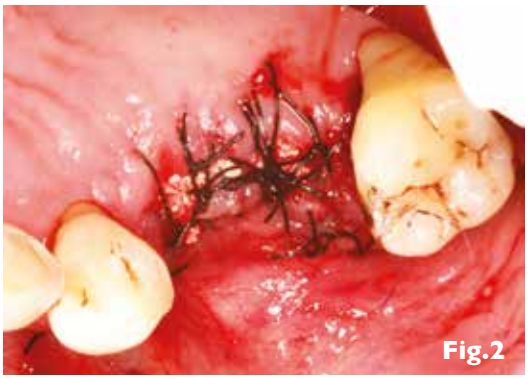


Fig. 1
Socket filled with a mixture of beta-TCP and patient blood.

Fig. 2
Socket closed by suture using a coronally repositioned flap.

Histological processing

The specimens were processed to obtain thin undecalcified sections following Donath's method and using the EXACT system.
Briefly, specimens were fixed in buffered 10% formalin, progressively dehydrated in alcohol and then embedded in photopolymerizable methacrylate resin (Technovit 7200®, VLC-Heraus Kulzer GMBH, Werheim, Germany). After polymerization, the specimens were cut with a diamond saw and then ground with silicon carbide papers to a width of about 70 microns. After thinning, samples were stained with Levai Laczko stain and chromotrope 2R/Harris haematoxylin.

	FEMALES	MALES	MEAN	STANDARD DEVIATION
Age (yrs)	48	39.7	44.3	10.47
Number	9 (56.25%)	7 (43.75%)		
Smokers (1-9 cigs/day)	2 (12%)	0 (0%)		
Drinkers	0 (0%)	0 (0%)		

Table 1
Results. Variables related to the individual. Mean age 44.3 yrs (standard deviation: 10.74); 7 males (44%) with mean age 39.7 yrs and 9 females (56%) with mean age 48 yrs. No participant (0%) was a daily drinker of alcohol, and two (12%) were daily smokers of 1-9 cigarettes.

A motorized Olympus BX51 microscope with Olympus DP71 camera was used to image the specimens, with Olympus D-cell capture software and Photoshop CS3 image processing software, employing a Wacom Intuos 4 pen tablet and applying the Olympus MicroImage 4.0 program to obtain histomorphometric measurements.
Data were gathered on the following.
1. Patient variables, sex, age, and consumption of alcohol and cigarettes (smoker = 1-9, non-smoker = 0 cigarettes/day, to test whether a light tobacco habit affects socket healing).
2. Clinical variables, biomaterial stability within socket and primary implant stability.
3. Radiological findings.
4. Histological variables at 6 months, degree of bone neoformation in socket, amount and quality of newly formed bone, degree of contact between patient bone and beta-TCP and degree of beta-TCP resorption, all assessed by direct microscopic observation.
5. Histomorphometric variables, areas of newly formed bone, immature bone, old bone, biomaterial and lamellar bone, bone-biomaterial contact index (perimeter of material in contact with bone / perimeter of whole material), remnant volume (surface of material present / [surface of material present + total bone surface]) and immature: mature bone ratio (mature bone surface / total bone surface).
Specifically designed forms were used to collect data at the following time points: tooth extraction, gathering patient variables; suture withdrawal (7-10 days post-extraction), recording radiological findings; and implant placement (around 6 months post-extraction), gathering radiological findings and data on material retention in the socket and primary implant stability. Histological data were obtained from the pathology report on samples taken at implant placement.
Microsoft Excel and SPSS were used for the statistical analyses, which included: descriptive analysis of patient, clinical and histomorphometric variables; frequency histograms for histomorphometric variables; Shapiro-Wilks normality tests for histomorphometric variables, age and healing time; 95% confidence intervals for histomorphometric variables; use of the Pearson correlation coefficient to analyse associations of different histomorphometric variables with each other and with healing time and age; analysis of variance (ANOVA) to determine the effect of healing time on newly formed bone area, biomaterial area and bone-biomaterial contact index; and the Student's t test to compare newly formed bone area, biomaterial area and bone-biomaterial contact index between shorter and longer healing times (5-6 months versus 7-8 months, respectively).

RESULTS

Patient variables

One male patient abandoned the study before implant placement. Among the 15 remaining patients, 21 biopsies were obtained after a mean healing time of 6.2 months (standard deviation: ±1.05). Out of the 21 biopsies, 3 were impaired during grinding and could not be processed, and 2 were incorrectly sampled and excluded from the analyses. Hence histological and histomorphometric analyses were conducted in a final sample of 16 biopsies (Table 1).

Clinical results

None of the patients evidenced biomaterial loss at implant placement; in some cases, the most superficial area showed residual graft particles that had no effect on the surgical procedure or primary stability, which was obtained in all cases. X-ray images revealed no complications, and in all the films, high radiopacity and consequent prompt identification of the material was detected.

Histological and histomorphometric results

No biomaterial fragments or necrotic bone splinters were detected in any of the 16 biopsies analyzed. In three cases, the biomaterial was integrated in the bone and surrounded by fibrous tissue with rim of osteoblasts and osteoid matrix; in one case, the biomaterial was surrounded by lax conjunctive tissue; in five cases, it was surrounded by mature bone trabeculae with scant osteoid and osteoblastic rimming; in seven cases, modest to highly abundant immature bone trabeculae growth was observed with osteoid and osteoblasts rim. Ten of

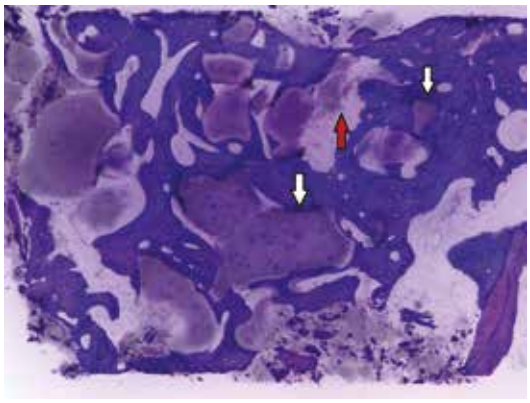
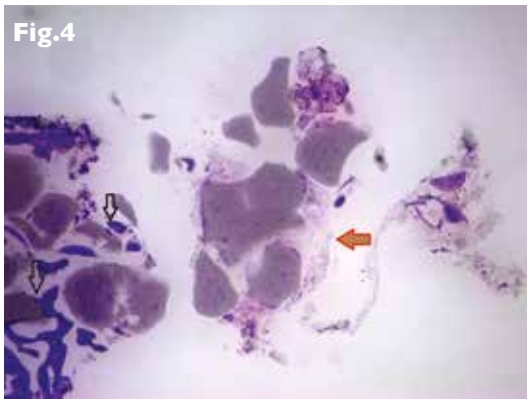


Fig.4



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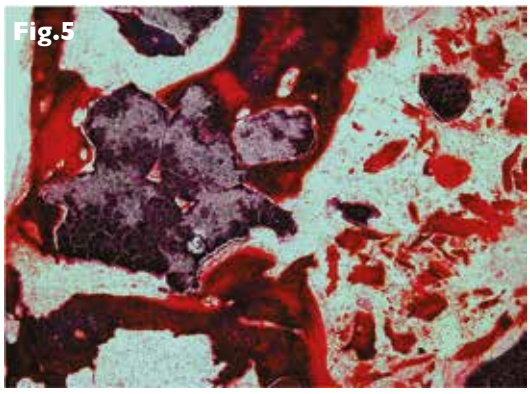

the biopsies showed the presence of medullary fibrosis, at a low level in most cases.
Evidence of vital bone growth was found in the sockets, with bone neoformation in close contact with graft particles. All samples showed residual particles of the material, with various degrees of material remodelling and resorption (Fig. 3, 4, 5).
The histological study at 6 months revealed that the degree of bone neoformation in the socket was generally moderate, that the newly formed bone was immature (consistent with the healing time) and surrounded by and in direct contact with biomaterial fragments and that the beta-TCP material showed initial signs of resorption.
Table 2 exhibits the results of the histomorphometric variables, which were found to follow a normal distribution (Shapiro-Wilk test). The frequency histograms showed that the mean contact between bone and biomaterial was <20% in 8 out of 15 biopsies and that the newly formed bone area was >20% in most of them; the biomaterial area was <20% in most of the biopsies. Calculation of 95% confidence intervals showed significance for all variables, except for the immature bone area and lamellar bone area, for which there were measurements in only two cases (Table 3). These two variables were excluded from analysis, using Pearson's correlation coefficient, of the relationships of histomorphometric variables with each other and with healing time and age; a positive correlation was found between remnant volume and biomaterial area (p= 0.0056) and between old bone area and the immature bone:mature bone ratio (p= 0.015).
Although the healing period was established as 6 months for this study, this time was sometimes influenced by specific patient circumstances and ranged from 5 to 8 months. The results for newly

Fig. 3
Newly formed bone around the biomaterial, (white arrows) with faint signs of resorption in the central area of the biopsy (red arrow). Most of the bone is newly formed, with traces of old bone at the periphery. Levai-Laczko stain. 100X.

Fig. 4 Material integrated in the bone tissue; there is a predominance of lax connective tissue (red arrow), although with areas of denser connective tissue. The biomaterial is integrated in bone trabeculae (white arrows). Levai-Laczko stain. 100X.

Fig. 5
Biomaterial surrounded by immature bone. Chromotrope 2R/Harris haematoxylin staining. 100X.

Table 2
Results. Descriptive statistics of histomorphometric variables. Table shows the minumim and maximum values for each variable; the mean and the median are also showed for each variable.

VARIABLE (%)	MINIMUM VALUE	MAXIMUM VALUE	MEAN	MEDIAN	STANDARD DEVIATION
Newly formed bone area	0.30	45.33	20.15	13.64	15.42
Immature bone area	8.34	31.80	20.07	20.07	16.58
Old bone area	0.43	21.03	11.98	11.87	7.65
Biomaterial area	0.33	26.25	11.40	7.99	8.88
Lamellar bone area	2.02	6.11	4.06	4.06	2.89
Bone-implant contact index	0	69.70	32.31	19.82	24.94
Remnant volume	0	98.85	31.98	35.60	25.68
Immature bone-mature bone relationshop	0	96.07	42.62	36.13	36.48

formed bone area, biomaterial area and bone-biomaterial contact index were analyzed in function of healing time, finding no significant differences. Then, newly formed bone area, biomaterial area and bone-biomaterial contact index were compared between healing times of 5-6 months and 7-8 months, finding no significant differences, altough borderline significance (p=0.08) was obtained for newly formed bone area.

DISCUSSION

In this study, post-extraction placement of beta-TCP in the socket did not cause any complications and achieved good clinical outcomes. There was histological evidence of bone neoformation at implant placement, with the presence of osteocytes and immature bone. The mean percentage of neoformed bone was 20.15%, in line with previous reports (22-25). The biomaterial area was less than 20% in most of the biopsies, confirming the resorbability of the biomaterial. The biomaterial was readily identifiable on X-ray, being much denser than the adjacent bone, as previously reported by Von Doernberg et al. (26). This characteristic is useful for the radiographic follow-up of healing, because the radiopacity changes as the material is resorbed and replaced by new bone.

Clinical studies on humans generally require the use of non-invasive techniques, e.g. radiology; but a biopsy study is the currently optimal method to assess the regeneration, quantity and quality of bone. A two-phase approach, inserting the graft in the first phase and the implant in the second, allows a histological sample to be obtained (20). This technique was applied in the present study.

We mixed beta-TCP with saline solution or blood from the patient, as in the study by Horowitz et al. (24), given the difficulty of managing this porous material in granular form (27).

Six months as bone healing time was selected, because most of the ceramic is resorbed, and the grafted tissue can be considered sufficiently stable for functional implant loading (19, 24). A study in pigs (28) found beta-TCP degradation to be slow, with 80% of the material resorbed at 28 weeks and 97% at 86 weeks; therefore, the authors recommended an interval of 5-6 months before implant placement in grafted areas, concluding that the cell response to their simultaneous placement could damage implant osseointegration. Some authors suggested lengthening this healing time in order to increase implant stability (4), and it was found that the presence of residual particles at 9 months does not compromise implant placement (23). In contrast, as reported above, Ormianer et al. achieved a 97% success rate after the immediate placement of implants in augmented areas and their immediate implant loading (22).

With regard to the mechanism of beta-TCP degradation before its substitution by bone, it was attributed by Wiltfang et al. (28) to chemical hydrolysis (halisteresis) and the activity of phagocytic cells (multinucleated giant cells). Two degradation pathways have since been described: osteoclast-mediated resorption and dissolution in interstitial fluid (23). A study in 2005 detected no osteoclastic activity in biopsies from sinuses augmented with this biomaterial, but this finding does not rule out the participation of osteoclasts although it suggested that it is limited (29). Besides these two mechanisms, it has been postulated that beta-TCP resorption may also be mediated by cells other than osteoclasts (20). However, Martinez et al. (30) suggested that osteoclasts or macrophage cells may not play an important role in beta-TCP resorption, as they found in the bone-beta-TCP interface cells

Table 3
Results. 95% confidence intervals. Calculation of 95% confidence intervals showed significance for all variables, with the exception of immature bone area and lamellar bone area, for which there were measurements in only two cases.

VARIABLE	Upper Interval limit	Lower interval limit	Statistical significance
Newly formed bone area	29.95	10.35	Significant
Immature bone area	169.11	-128.97	Not Significant
Old bone area	19.06	4.91	Significant
Biomaterial area	18.23	4.58	Significant
Lamellar bone area	30.04	-21.92	Not Significant
Bone-implant contact index	46.12	18.49	Significant
Remnant volume	46.20	17.76	Significant
Immature bone: mature bone ratio	63.69	21.56	Significant

of the reticuloendothelial system.

Some data are available on the use of beta-TCP for alveolar preservation (22-25). Ormianer studied the use of beta-TCP alone in 338 patients, although alveolar preservation was not investigated in all of these, and the number of patients undergoing the different procedures was not specified; the mean follow-up was 19.2 months and the global implant survival rate was 97.6%. In 2008, Brkovic reported on the use of beta-TCP with collagen alone in one patient, followed up for 9 months, reporting good clinical outcomes with bone formation activity.

In 2012, Horowitz used beta-TCP with a membrane in 30 patients, followed up for a mean of 6 months, also observing good outcomes with preservation of 91% of the socket width. Finally, in the same year, Brkovic studied 20 patients in two groups, one receiving beta-TCP with membrane and apically repositioned flap and the other beta-TCP alone, with a mean follow-up of 9 months, concluding that socket preservation was lower in the group without membrane. Our results are comparable to the findings of these four studies, because the implant survival was 100%, the clinical outcomes were good, bone neoformation was observed in the biopsies, and there was only a small volume of residual bone (11.98%) (Table 2).

There have also been reports on socket preservation with the use of other materials. Thus, Liasella et al. employed allografts with good results (31), while De Coster et al. (32) used biphasic ceramics but obtained poor outcomes that delayed implant placement.

After experiencing some problems in harvesting the specimens from the trephine, the protocol was modified and the samples were processed with the trephine as a block. Zerbo (33) also found it difficult to remove beta-TCP biopsies in a single piece from the trephine, and Suba (20) reported that biomaterial particles frequently broke during sample preparation.

In the present study three biopsies were lost in the polishing process, due to the complexity of sample processing, and one biopsy was taken from the incorrect area, a problem that some authors have resolved by using surgical guides (25).

In the study by Horowitz 2010 (34), two cases are discussed. In the first one an identical procedure to the one here described was followed, except for the use of a resorbable membrane after the placement of the biomaterial. The clinical outcome was excellent, allowing the placement of a dental implant 6 months after extraction. The biomaterial was replaced by new vital bone, just as in our work. Their second case is that of a smoker patient; the biomaterial was placed in the socket followed by a membrane. Healing time in this case was 10 months, after which an implant was placed. The clinical, radiological and histological results are comparable to those of our study, they observed the formation of osteon and Haversian systems in the biopsy due to increased healing time.

With the limitations of this study, especially regarding the small sample size, the histological and clinical results are in agreement with reports by various authors, evidencing problem-free healing, primary stability of implants placed in the augmented area, and an adequate substitution of beta-TCP particles by newly formed bone at 6 months.

CONCLUSION

The clinical and radiographic outcomes of this procedure are satisfactory, with no associated complications. Beta-tricalcium phosphate seems to be a biomaterial capable of achieving preservation of the alveolar bone when it is positioned immediately in post-extraction socket followed by suture; also facilitating the formation of new bone in the socket in the first six months. This resorbable material allows predictable and reproducible bone regeneration. As advantages, it can be noted its unlimited availability, its easy handling and its great radiopacity, allowing radiographic follow-up of the area. Multiple publications have shown the suitability of this material for use in bone augmentation techniques. Further clinical studies and randomized clinical trials are needed, comparing this technique with other available biomaterials, with growth factors and with alveoli in which no alveolar preservation techniques are performed.

ACKNOWLEDGEMENTS

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REFERENCES

1. Allegrini S Jr, Koening B Jr, Allegrini MR, Yoshimoto M, Gedrange T, Fanghaenel J et al. Alveolar ridge sockets preservation with bone grafting-review. Ann Acad Med Stetin 2008;54:70-81.

2. Khan Y, Yaszemski MJ, Mikos AG, Laurencin CT. Tissue engineering of bone: material and matrix considerations. J Bone Joint Surg Am 2008;90(Suppl 1):36-42.

3. Tripplet RG, Schow SR, Laskin DM. Oral and maxillofacial surgery advances in implant dentistry. Int J Oral Maxillofac Implants 2000;15:47-55.

4. Zijderveld SA, Zerbo IR, van der Bergh JPA, Schulten EAJM, ten Bruggenkate CM. Maxillary sinus floor augmentation using a beta-tricalcium phosphate (Cerasorb) alone compared to autogenous bone grafts. Int J Oral Maxillofac Implants 2005;20:432-40.

5. Darby I, Chen S, De Poi R. Ridge preservation: what is it and

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March 2015; 7(1)

when should it be considered. Aust Dent J 2008;53:11-21.
6. *Giannoudis PV, Dinopoulos H, Tsiridis E. Bone substitutes: an update. Injury 2005;36 Suppl 3:S20-7.*
7. *Deppe H, Horch H, Neff A. Conventional versus CO2 laser-assisted treatment of peri-implant defects with the concomitant use of pure-phase ß-tricalcium phosphate: a 5-year clinical report. Int J Oral Maxillofac Implants 2007;22:79-86.*
8. *Franch J, Díaz-Bertrana C, Lafuente P, Fontecha P, Durall I. Beta-tricalcium phosphate as a synthetic cancellous bone graft in veterinary orthopaedics. A retrospective study of 13 clinical cases. Vet Comp Orthop Traumatol 2006;19:196-204.*
9. *Gan Y, Dai K, Zhang P, Tang T, Zhu Z, Lu J. The clinical use of enriched bone marrow stem cells combined with porous beta-tricalcium phosphate in posterior spinal fusion. Biomaterials 2008;29:3973-82.*
10. *Liu G, Zhao L, Cui L, Liu W, Cao Y. Tissue-engineered bone formation using human bone marrow stromal cells and novel beta-tricalcium phosphate. Biomed Mater 2007;2:78-86.*
11. *Allabouch A, Colat-Parros J, Salmon R, Naim S, Meunier JM. Biocompatibility of some materials used in dental implantology: histological study. Colloids Surf B Biointerfaces 1993;1:323-9.*
12. *Aybar B, Bilir A, Akçakaya H, Ceyhan T. Effects of tricalcium phosphate bone graft materials on primary cultures of osteoblast cells in vitro. Clin Oral Impl Res 2004;15:119-25.*
13. *Byun H, Wang H. Sandwich bone augmentation using recombinant human platelet-derived growth factor and beta-tricalcium phosphate alloplast: case report. Int J Periodontics Restorative Dent 2008;28:83-7.*
14. *Alam S, Ueki K, Marukawa K, Ohara T, Hase T, Takazakura D et al. Expression of bone morphogenetic protein 2 and fibroblast growth factor 2 during bone regeneration using different implant materials as onlay bone graft in rabbit mandibles. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2007;103:16-26.*
15. *Boix D, Weiss P, Gauthier O, Guicheux J, Bouler JM, Pilet P et al. Injectable bone substitute to preserve alveolar ridge resorption after tooth extraction: a study in dog. J Mater Sci Mater Med 2006;17:1145-52.*
16. *Fiorellini JP, Kim DM, Nakajima Y, Weber HP. Osseointegration of titanium implants following guided bone regeneration using expanded polytetrafluoroethylene membrane and various bone fillers. Int J Periodontics Restorative Dent 2007;27:287-94.*
17. *Masago H, Shibuya Y, Munemoto S, Takeuchi J, Umeda M, Komori T et al. Alveolar ridge augmentation using various bone substitutes--a web form of titanium fibers promotes rapid bone development. Kobe J Med Sci 2007;53:257-63.*
18. *Suba Z, Takács D, Gyulai-Gaäl S, Kovács K. Facilitation of beta-tricalcium phosphate-induced alveolar bone regeneration by platelet-rich plasma in beagle dogs: a histologic and histomorphometric study. Int J Oral Maxillofac Implants 2004;19:832-8.*
19. *Horch HH, Sader R, Pautke C, Neff A, Deppe H, Kolk A. Synthetic, pure-phase beta-tricalcium phosphate ceramic granules (Cerasorb) for bone regeneration in the reconstructive surgery of the jaws. Int J Oral Maxillofac Surg 2006;35:708-13.*
20. *Suba Z, Takács D, Matusovits D, Barabás J, Fazekas A, Szabó G. Maxillary sinus floor grafting with beta-tricalcium phosphate in humans: density and microarchitecture of the newly formed bone. Clin Oral Impl Res 2006;17:102-8.*
21. *Szabó G, Huys L, Coulthard P, Maiorana C, Garagiola U, Barabas J et al. A prospective multicenter randomized clinical trial of autogenous bone versus beta-tricalcium phosphate graft alone for bilateral sinus elevation: histologic and histomorphometric evaluation. Int J Oral Maxillofac Implants 2005;20:371-81.*
22. *Ormianer Z, Palti A, Shifman A. Survival of immediately loaded dental implants in deficient alveolar bone sites augmented with beta-tricalcium phosphate. Implant Dent 2006;15:395-403.*
23. *Brkovic BM, Prasad HS, Konandreas G, Milan R, Antunovic D, Sándor GK et al. Simple preservation of a maxillary extraction socket using beta-tricalcium phosphate with type I collagen: preliminary clinical and histomorphometric observations. J Can Dent Assoc 2008;74:523-8.*
24. *Horowitz RA, Mazor Z, Miller RJ, Krauser J, Prasad HS, Rohrer MD. Clinical evaluation of alveolar ridge preservation with a beta-tricalcium phosphate socket graft. Compend Contin Educ Dent 2009;30:588-90, 592, 594 passim; quiz 604, 606*
25. *Brkovic BM, Prasad HS, Rohrer MD, Konandreas G, Agrogiannis G, Antunovic D, Sándor GK. Beta-tricalcium phosphate/type I collagen cones with or without a barrier membrane in human extraction socket healing: clinical, histologic, histomorphometric, and immunohistochemical evaluation. Clin Oral Investig 2012;16:581-90.*
26. *von Doernberg MC, von Rechenberg B, Bohner M, Grünenfelder S, van Lenthe GH, Müller R et al. In vivo behavior of calcium phosphate scaffolds with four different pore sizes. Biomaterials 2006;27:5186-98.*
27. *Walsh WR, Vizesi F, Michael D, Auld J, Langdown A, Oliver R et al. Beta-TCP bone graft substitutes in a bilateral rabbit tibial defect model. Biomaterials 2008;29:266-71.*
28. *Wiltfang J, Merten HA, Schlegel KA, Schultze-Mosgau S, Kloss FR, Rupprecht S et al. Degradation characteristics of alpha and beta tri-calcium-phosphate (TCP) in minipigs. J Biomed Mater Res 2002;63:115-21.*
29. *Zerbo IR, Bronckers AL, de Lange G, Burger EH. Localisation of osteogenic and osteoclastic cells in porous beta-tricalcium phosphate particles used for human maxillary sinus floor elevation. Biomaterials 2005;26:1445-51.*
30. *Martinez A, Franco J, Saiz E, Guitian F. Maxillary sinus floor augmentation on humans: Packing simulations and 8 months histomorphometric comparative study of anorganic bone matrix and ß-tricalcium phosphate particles as grafting materials. Mater Sci Eng C Mater Biol Appl 20101 5;30:763-9.*
31. *Iasella JM, Greenwell H, Miller RL, Hill M, Drisko C, Bohra AA et al. Ridge preservation with freeze-dried bone allograft and a collagen membrane compared to extraction alone for implant site development: a clinical and histologic study in humans. J Periodontol 2003;74:990-9.*
32. *De Coster P, Browaeys H, De Bruyn H. Healing of extraction sockets filled with BoneCeramic® prior to implant placement: preliminary histological findings. Clin Implant Dent Relat Res 2011;13:34-45.*
33. *Zerbo IR, Zijderveld SA, de Boer A, Bronckers AL, de Lange G, ten Bruggenkate CM et al. Histomorphometry of human sinus floor augmentation using a porous beta-tricalcium phosphate: a prospective study. Clin Oral Implants Res 2004;15:724-32.*
34. *Horowitz RA, Mazor Z, Foitzik C, Prasad H, Rohrer M, Palti A. b-tricalcium phosphate as bone substitute material: properties and clinical applications. J Osseointegr 2010;2(2):61-68.*

Management of impacted dilacerated maxillary incisor with strategic positioning of a straightwire appliance

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ABSTRACT

Aim: To describe the orthodontic management of root dilaceration of an impacted maxillary tooth following trauma to its deciduous predecessors, to show the clinical management of root dilaceration of a maxillary central incisor and describe how the dilacerated tooth was successfully moved into alignment in a young patient with a proper multidisciplinary approach, using the simple and effective straightwire technique.

Case report: After surgical exposure and orthodontic traction, the impacted dilacerated tooth was brought to alignment in the arch. The patient's chewing and speech function, and aesthetics were restored. The radiograph shows that the root is finally straight and relatively well developed. This approach avoids extraction and prosthetic rehabilitation of the dilacerated tooth.

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KEY WORDS
dilacerated teeth; straightwire appliance; impacted maxillary central incisor.

INTRODUCTION

Andreasen et al. [1971] defined dilaceration as the abrupt deviation of the long axis of the crown or root portion of the tooth, which is due to a traumatic non-axial displacement of already formed hard tissue in relation to the developing soft tissue [Andreasen et al., 1971].

The knowledge regarding how, where and when the traumatic injury has occurred is very important in order to make a precise diagnosis during the emergency visit, and to adopt the correct and most efficient clinical procedure [Ribeiro and Campos, 2009].

The aetiology of dilaceration is not fully understood. There are two main explanations of its causes: an acute mechanical injury to the primary predecessor tooth, which causes dilaceration of the underlying developing succedaneous permanent tooth; idiopathic developmental disturbances as the cause of dilacerations, mainly in cases where there is no clear sign or history of traumatic injury [Topouzelis et al., 2010; Smith and Winter, 1981; Jafarzadeb and Abbott, 2007; Stewart, 1978].

The treatment of a dilacerated anterior tooth includes surgical exposure followed by orthodontic traction; endodontic treatment or apicectomy may be associated [Lin, 1999]. Alternatively, treatment often involves surgical removal followed by orthodontic therapy to either close the space or keep it open until the patient reaches an age when implants or prosthetic treatment can be performed.

This article presents a patient with a dilacerated maxillary right central incisor managed with a multidisciplinary approach. The dilacerated tooth was disimpacted and aligned using a simple and effective method by strategic positioning of a straightwire appliance.

CASE REPORT

Diagnosis and treatment plan

A 9-year-old Caucasian girl was referred by her general dentist to our examination. The chief concern was the non-eruption of the maxillary right central incisor. His parents mentioned a traumatic injury affecting the frontal oral region when the child was 5 years old.

Clinical examination revealed that the patient had a symmetric face and brachyfacial type.

Intraoral examination showed an early mixed dentition and an Angle Class I molar and canine relationship. The impaction of the maxillary right central incisor had resulted in drifting of the adjacent teeth with a resultant midline deviation (Fig. 1). A metal chain showed through the gingival tissues of tooth 1.1 area because her general dentist


Fig.1a


Fig.1b


Fig.1c


Fig.1d


Fig.1e


Fig.1f

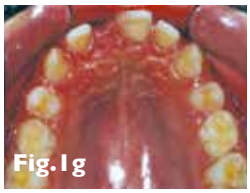


Fig.1g


Fig.1h


Fig.1i

Fig. 1(a-i)
Pre-treatment extraoral and intraoral photographs.

Fig. 2(a-b)
Pre-treatment panoramic and maxillary occlusal radiographs.

Fig. 3a
Pre-treatment cephalogram showing the dilacerated maxillary incisor;

Fig. 3b
celophametric tracing

Table I
Cephalometric data.

had performed a surgical exposure and applied a traction chain. We performed an occlusal radiograph that showed a bracket bonded to the palatal surface of the impacted tooth (Fig. 2).
Palpation of the vestibular mucosa indicated a bulge in the upper anterior area where the dilacerated incisor was probably located. Cephalometric, panoramic and occlusal radiographs revealed that the permanent maxillary right central incisor was impacted and displayed root dilaceration. Its apical foramen appeared as a circular radiopaque area with a dark radiolucent spot in the center, known as the 'Bull's eye'. The tooth's morphology and position were clearly visible in the lateral cephalometric radiograph showing a horizontally displaced tooth, with its crown rotated more than 100° from normal, and its incisal tip just below the floor of the nose (Fig. 3).
The palatal surface of the crown was facing forward "like the hand of a traffic policeman" and the root was shortened. It was not possible to exactly define the root apex on the conventional radiographs.
The analysis of the lateral cephalometric radiograph disclosed a skeletal Class II occlusion with a balanced facial pattern (Table 1).
The aim of the treatment was to guide the impacted incisor into proper alignment with the adjacent incisor teeth and to re-create a complete anterior dentition. The treatment aimed at obtaining proper crown and root alignment without further

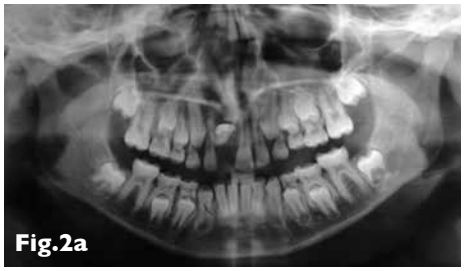


Fig.2a

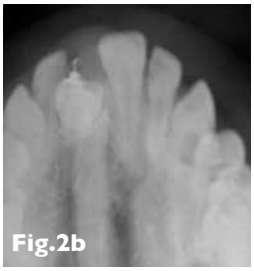


Fig.2b


Fig.3a

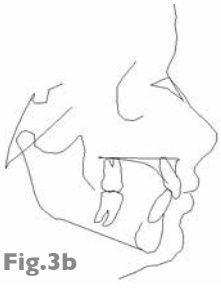


Fig.3b

	Pre-treatment	Post-treatment
SNA	81	82
SNB	76,5	78
ANB	5,5	4
Wits appraisal	2	0
SN/Go-Gn	34	37
FMA	26	28
SN/ANS-PNS	8	14
ANS-PNS / Go-Gn	22	23
+1 / ANS-PNS	112	118
IMPA	102	96
-1 / A-Pg	2	2
+1 / A-Pg	8	4
OVJ	5	2
OVB	4	2

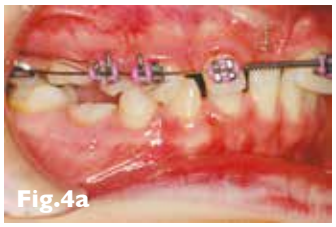


Fig.4a

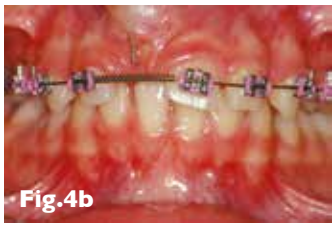


Fig.4b

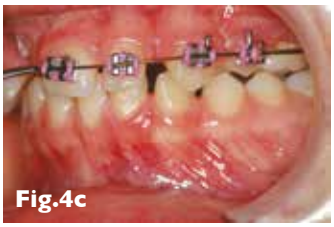


Fig.4c


Fig.4d


Fig.4e


Fig.4f

Fig. 4(a-f)
Intraoral view before surgery.

Fig. 5(a-b)
Surgical exposure of the impacted tooth.

Fig. 6(a-f)
Progress of the orthodontic traction.

root damage while maintaining the vitality and integrity of the root of the dilacerated tooth. The purpose of the treatment was, also, to extrude the tooth with all its supporting tissues (alveolar bone and attached gingiva) and to evaluate the long-term gingival and periodontal conditions.
The approach was multidisciplinary involving a combined surgical/orthodontic treatment.

Treatment progress

A STEP (Leone®, Florence, Italy) straightwire appliance was placed on the maxillary permanent teeth to create space for the impacted central incisor (Fig. 4). Prefabricated Ni-Ti, round section, 0.014 and 0.016-inch arch wires were used to align and to level the maxillary anterior teeth. Then an open-coil spring was positioned on 0.018 Australian archwire between teeth 2.1 and 1.2 to open up space in the arch to full availability for the dilacerated tooth.
After adequate space was obtained and the tooth began to erupt, the surgery was planned. Surgical exposure of the permanent maxillary right central incisor ensued with apical repositioning flap, so that a button could be bonded onto the labial tooth surface. The placement of a button on the labial surface allows for better palatal movement of the crown (Fig. 5). Orthodontic traction of the permanent maxillary right central incisor was accomplished by attaching the traction chain to archwires.
Alignment and leveling was then continued using

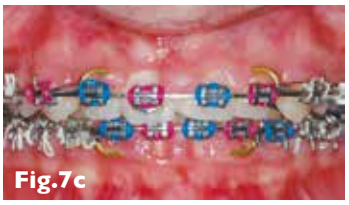

Fig.5a


Fig.5b


Fig.6a


Fig.6b


Fig.6c



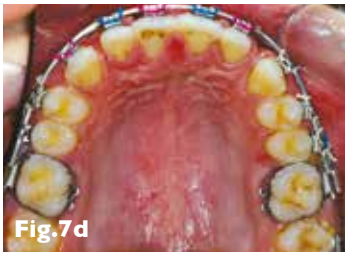
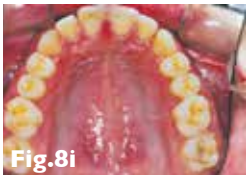
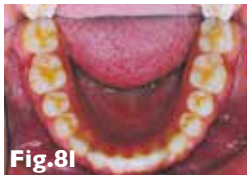


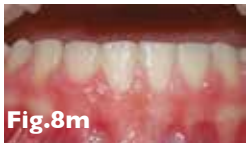
Fig. 7(a-d)
Strategic positioning of the bracket bonded upside down.

Fig. 8(a-o)
Records after debonding.

a 0.020 Australian archwire with a vertical occlusal step with an eyelet on extrusion axis. Traction was activated changing the elastic cotton thread every 2 weeks until the crown of the permanent maxillary right central incisor appeared properly oriented in the oral cavity. The traction force was about 40 g. This treatment stage lasted 6 months (Fig. 6).
Next, the button was removed from the labial surface of the permanent maxillary right central incisor and a bracket was bonded. Prefabricated round section Ni–Ti archwires with 0.014 and 0.016 inches were used again, in sequence, on the upper teeth.
In the same time a straightwire appliance was placed on the mandibular permanent teeth.
After that, Australian 0.018 and 0.020 inch archwire were used for the total alignment of the permanent maxillary right central incisor.
The right central incisor was brought closer to alignment, so an orthodontic bracket was bonded







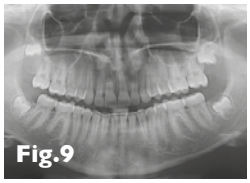


Fig.9

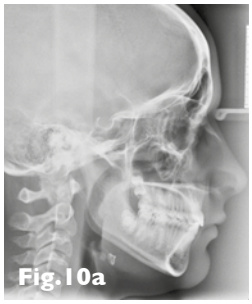


Fig.10a


Fig.10b

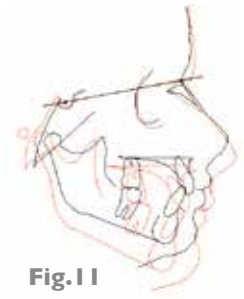


Fig.11

upside down on the labial surface to initiate labial root torque using a 0.019 x 0.025 Ni-Ti archwire. The strategic positioning of the bracket allowed a better position of the tooth root and harmonic gingival margin of the two central incisors (Fig. 7). Treatment continued with a 0.019 x 0.025-inch SS wire with tie-back. After about 3 months the bracket on the 1.1 was repositioned normally. The finishing stage was performed by 0.018 Australian archwire.

Treatment results

After 26 months of treatment the brackets were removed and permanent retention was bonded to the lingual surface of the lower anterior teeth. At the end of the treatment, the free and attached gingiva of the dilacerated tooth appeared acceptable (Fig. 8). The dilacerated impacted teeth was properly aligned in the dental arch restoring the masticatory, phonatory functions and patient's ae


Fig.12a


Fig.12b


Fig.12c


Fig.12d


Fig.12e


Fig.12f


Fig.12g


Fig.12h

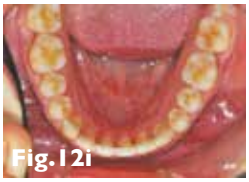


Fig.12i


Fig.12l

Fig. 9
Post-treatment panoramic radiograph showing no signs of root resorption of the aligned left central incisor.

Fig. 10a
A Post-treatment cephalogram proving that penetration of the cortical bone from the dilacerated root apex was avoided;
b cephalometric tracing.

Fig. 11
Superimpositions of the lateral cephalograms showing the dental and skeletal changes during orthodontic treatment: superimposition on the anterior cranial base (S-N).

Fig. 12
(A-L) One year post-treatment.

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sthetics. The root appears radiographically aligned and not severely compromised (Fig. 9-11). The patient was referred to the conservative dentist for restoration of the incisal margin. The one-year follow-up showed a good maintenance of the result. Aesthetic periodontal surgery and a prosthetic treatment might be recommended in adulthood (Fig. 12).

DISCUSSION

Most studies of dilaceration have concerned the maxillary central incisors, as was the case in the present study. McNamara et al. [1998] successfully aligned dilacerated maxillary central incisors planning a therapy that encompassed endodontic treatment and apicoectomy. Dilacerated impacted teeth can be properly aligned in the dental arch by appropriate treatment, which frequently requires cooperation among orthodontists, periodontists, paedodontists, endodontists, and/or prosthodontists. In the present study, no endodontic treatment or apicoectomy was needed during or after treatment, as has sometimes been required in similar cases.

A dilacerated tooth is said to be more resistant to extrusion than a tooth with a normal root, making the apical area more prone to resorption. However, in our patient, no severe root resorption could be detected, suggesting that, in the case of dilaceration, root resorption can hardly be predicted. Radiographic checkups during orthodontic traction are advisable [Cozza et al., 2005].

The success rate of an impacted dilacerated tooth alignment mainly depends on the following factors:
- position and direction of the impacted tooth;
- degree of root formation;
- degree of dilaceration;
- availability of space for the impacted tooth.

Machtei et al. [1990] also include the condition of the periodontium. McNamara et al. [1998] underline the decisive significance of the post-traumatic condition of the Hertwig's epithelial root sheath for a successful therapeutic outcome, since normal root development depends on its integrity. A dilacerated tooth with an obtuse inclination angle, a lower position in relation to the alveolar crest combined with an incomplete root formation has a better prognosis for orthodontic traction.

CONCLUSION

The factors that determined a positive outcome are the following.
- The strategic placement of the straightwire appliance allows correct positioning of the tooth root and harmonic gingival margin of the two central incisors.
- The placement of buttons on the labial surface allows the palatal movement of the crown.
- The use of light and constant orthodontic forces (40 g) exerted by means of traction chain and elastic cotton thread before and NiTi superelastic wires.

REFERENCES

› *Andreasen JO, Sndström B, Ravn JJ. The effect of traumatic injuries to primary teeth on their permanent successors. A clinical and histologic study of 117 injured permanent teeth. Scand J Dent Res 1971 ; 79:219–83.*
› *Cozza P, Marino A, Condo, R. Orthodontic treatment of an impacted dilacerated maxillary incisor: a case report. J Clin Pediatr Dent Winter 2005 ; 30(2):93-7, .*
› *Jafarzadeb H, Abbott P. Dilaceration: review of an endodontic challenge. J Endod 2007 ; 33:1025–30.*
› *Lin YTJ. Treatment of an impacted dilacerated maxillary central incisor. Am J Orthod Dentofacial Orthop 1999 ; 115:406–9.*
› *Machtei EE, Zyskind K, Ben-Yehouda A. Periodontal considerations in the treatment of dilacerated maxillary incisors. Quintessence Int 1990; May 21(5):357-60.*
› *McNamara T, Woolfe SN, McNamara CM. Orthodontic management of a dilacerated maxillary central incisor with an unusual sequel. J Clin Orthod 1998; 32:293–7.*
› *Ribeiro D, Campos V. Prevalence of sequelae in the permanent anterior teeth after trauma in their predecessors: a longitudinal study of 8 years. Dental Traumatology 2009 ; 25:300–304.*
› *Stewart DJ. Dilacerate unerupted maxillary central incisors. Br Dent J 1978 145: 229–33.*
› *Smith DMH, Winter GB. Root dilaceration of maxillary incisors. Br Dent J 1981; 150:125–7.*
› *Topouzelis N, Tsaousoglou P, Pisoka V, Zouloumis L. Dilaceration of maxillary central incisor: a literature review. Dental Traumatology 2010; 26:427–433.*
› *White SC, Pharoah MJ, Oral radiology: principles and interpretation. 4th ed., St Louis: Mosby; 2000.*

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Hands on Prosthesis


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Periodontics and Implants


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Restorative and Esthetic Dentistry

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Trial of a new rapid palatal expansion screw

Author: Dr. Gabriele Galassini* Dr. Elena Marcuzzi** Dr. Natasa Paulina***

Rapid palatal expansion has been a well-established procedure in orthodontic practice for many years now. The first expansion was performed in 1860 by Emerson C. Angell, who, in San Francisco, expanded the maxillary arch of a fourteen and a half year old girl by a quarter of an inch in two weeks and noted the creation of an interincisal diastema, a sign that the expansion of the palatal suture had occurred.

This expansion was published in Dental Cosmos San Francisco Medical Press in 1860. Different types of screws and activation protocols have been developed over the years. In the following project, we tested an innovative screw, the characteristics of which allow for safe and effective activation, the quantity of which can be easily controlled.

External examination of the screw (Fig.1a-1b)

- Compact in appearance (7.5 x 12 millimeters) with rounded edges and a very smooth structure.
- The small screw cylinder has four teeth for preventing return.
- Small casing to prevent the screw from unwinding.
- Notches for controlling the amount of activation: each notch corresponds to 2 mm of activation.
- Stopping pins which firmly block the [Expander] once opened. This device prevents complete separation of the screw, with its subsequent disconnection and accidental opening of the two parts of the Expander.

Bench Testing (Fig.2a - 2b)

The opening of the screw with the special key was tested. The direction of activation is clearly indicated with a very visible arrow printed on the body of the Expander. The screw is activated by turning the key as far as it will go. At the end of each activation a loud click sound is heard, which is made when it meets the braking ring, provided with the device. The [braking ring] prevents the screw from unwinding when the activation screw is removed. This ensures the screw has been activated correctly and allows for the simple reinsertion of the key at the next activation, leaving the insertion hole perfectly accessible.

There are notches for controlling how much the Expander is activated. The first two notches are stamped onto the body of the Expander, whilst the others are stamped on the concentric sliding guides. The latter notches are therefore visible during activation whilst the screw is opening. The notches are positioned two millimeters apart from each other.
Each activation moves the screw forward by 0.2 mm, corresponding to a ¼ turn of the total circumference of the screw. The screw is therefore particularly stable for the whole expansion process and this is thanks to the double concentric sliding guide, one of the peculiarities of this Expander. The Expander remains stable until its maximum opening limit is reached, at which point it blocks without disconnecting the screw itself, thanks to a solid stopping device. This means it is possible to take advantage of the full length of the screw in absolute safety.

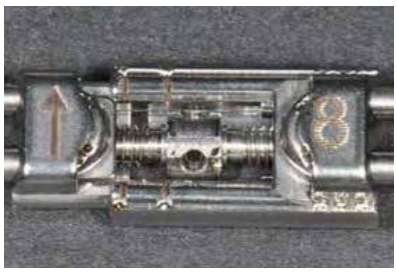

Fig. 2a
Screw activated at 4mm

Fig. 2b
Screw activated at 8mm - note the stopping device.


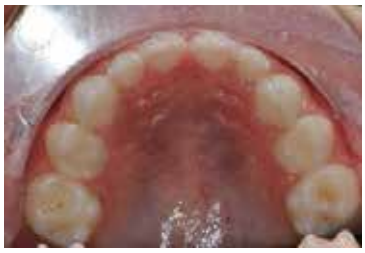
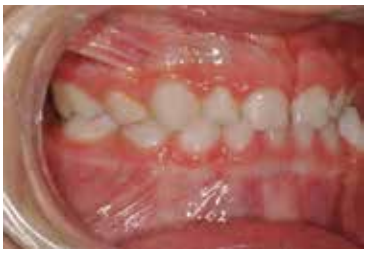
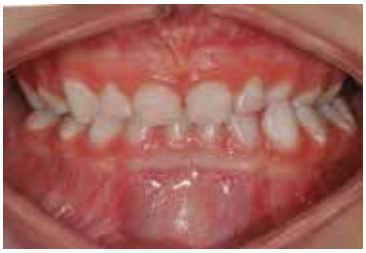
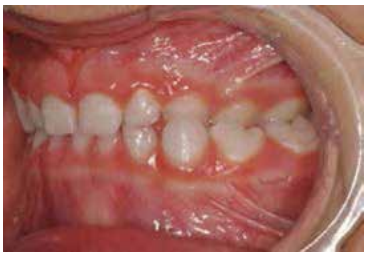

Fig. 3a-3b-3c-3d-3e-3f
5 year old Patient with left-sided crossbite

Clinical test (Fig. 3a–3b–3c–3d–3e)

We tested the Expander on a five year old Patient with a left-sided crossbite. We wanted to choose a very young Patient with a very small palate, given that it is mainly in these Patients that difficulties are most frequently encountered when activating the screws. These difficulties are linked to the confined spaces available for operating in. As a result, almost always, when the Parent removes the key after activating the screw, he/she tend to bring the screw back again, reducing how much they have activated it by. As a result, it is difficult for the Clinician to evaluate the real amount of expansion.

Activation protocol

The Expander was bonded to two bands and cemented onto the second deciduous molars and the rapid expansion protocol was implemented, which provides for the activation of the screw twice a day. (Fig. 4a – 4b). We asked the Parents to do this themselves, but remained contactable at all times for anything they needed or in case of emergency.

The Patient was examined after one week:

The Parents reported that they had noted the creation of an inter-incisive diastema on the fifth day, as is generally the case at this age, from our experience.

We discharged the Patient after having personally activated the screw to check its stability and the efficacy of the stopping device. On the fourteenth day we terminated activation as the pre-determined amount of expansion of 5.5 millimeters had been reached (fig. 5a – 5b). The correct amount of activation was confirmed by the reference notches. As you can see from the photo, the third notch is about to appear, indicating six millimeters, but is still slightly hidden by the sliding guide, whilst the two previous notches are clearly visible on the body of the expander. The expander remained blocked in the mouth for one month and was then replaced with a Quad helix (Fig. 6), which includes a marker for lingual repositioning. The Quad helix remained in the mouth for another four months, after which no other type of restraint was required. This protocol provides for the replacement of the rapid expander with a Quad helix


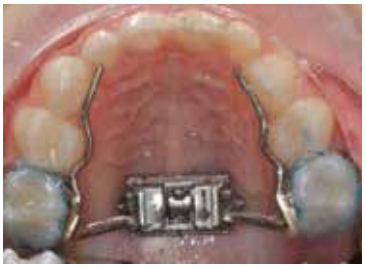
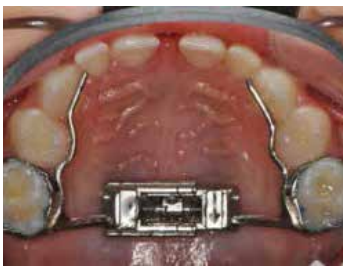
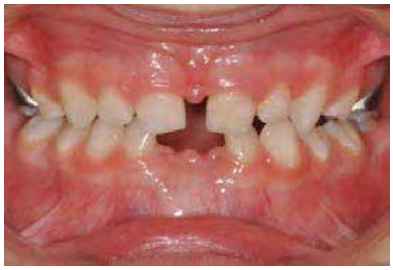
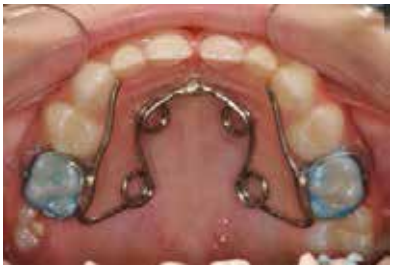

Fig. 4a-4b
The expander was bonded of two bands and cemented onto the second deciduous molars.

one month after the end of activation. It is a protocol we have been using for more than twenty years and has been tested on more than a hundred cases, proving to be particularly effective and free of any contraindications. In fact in our opinion, one month is more than enough for the consolidation of the midpalatal suture, given that this is the average time required for the consolidation of fractures. The replacement of the expander with a Quad helix provided with a lingual marker offers the following
advantages: it reduces the encumbrance to the palate. In fact, often owing to its encumbrance, the rapid expander forces the tongue into a low, forward position, with a subsequent open bite from lingual dysfunction. As well as maintaining the breadth obtained with the rapid expander, the Quad helix can also increase it, by activating it by the required amount.
Thanks to the lingual marker together with the modest encumbrance to the palate offered by the Quad helix (note its modeling in the photo), myofunctional re-education can be initiated immediately. This is definitely more important, in terms of the stability of the expansion and the prolonged use of the expander as a maintenance guard, given that the same prevents correct lingual repositioning, an indispensable condition for the stability of our treatment in the long term. In addition, since it is an elastic device, the Quad helix does not block the two hemimaxillae together, thus allowing the jaw to adapt to the occlusal forces, certainly a useful condition for the cranial architecture, which is also welcomed for osteopathic treatment.

Conclusions

In both bench and clinical testing, the Expander has proven to be extremely precise, assembled with care,
solid and without any flexion. The Parents of the Patient activated the screw at home with particular ease and precision, thanks to the braking device. In fact this feature enabled them to hear a "click" upon each activation, and above all to not turn the screw back when removing the key, thus undoing the activation they had just completed. This is such a frequent occurrence during the activation of traditional Expanders. The whole process went ahead without any problems and with the maximum level of comfort for the young girl, thanks also to the compact size of the Expander, permitting effective and safe use in very young Patients. The arm and the screw of the Expander were proven to be precise and without any flexion. The reference notches printed on the screw enabled the Clinician to check that the activation had been performed correctly. All this resulted in a greater sense of security for both the Patient and the Therapist, as well as being appreciated as an indicator of a high level of professionalism.

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References

- Font Jaume JM. Treatment in the deciduous dentition : four clinical cases. Prog Orthod 2006; 7(2):202- 19.
- Baccetti T, Franchi L, Mc Namara JA jr, Tollaro I. Early dentofacial features in Class II malocclusion: A longitudinal study from the deciduous through the mixed dentition. Am J Orthod Dentofac Orthop 1997 May;111(5): 502-9.
- Mc Namara JA. Maxillary trasverse deficency. Am J Orthod Dentofac Orthop 2000; 117(5): 567-70.
- Da Silva Filho OG, Boas MC, Capelozza Filho L. Rapid maxillary expansion in the primary and mixed dentitions: a cephalometric evalutation. Am J Orthod 1991 Aug; 100(2):171-81.
- Gandolfini M, Molinari L, Mandelli G, Di Blasio A. Uso precoce del Quad-helix in ortodonzia intercettiva. Mondo ortodontico 2003;4:269-275.
- Cozza P, Pachì F, Mucedero M, Macchiarlo E. La terapia precoce del deficit di tipo trasversale. Mondo ortodontico 2003;4:289-300.
- C. Alicino, I. Paini, M. Folli, G. Farronato. Asimmetria mandibolare in soggetti in fase di crescita con inversione monolaterale. Ortognatodonzia Italiana Vol.11,4-2002.
- Donald J. Timms. Rapida espansione del palato. Scienza e tecnica dentistica edizioni internazionali Milano 1984.
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Resolution a complication in Guided Bone Regeneration through a novel model of E-PTFE membrane: a case report

ABSTRACT

Guided bone regeneration (GBR) standard protocols call for filling the space underneath the membrane with autogenous bone or a mixture composed of autogenous bone particles and allogeneic bone tissue. This work describes the analisys of the complication (exposure) in a case of GBR and and its resolution for a correct implant install

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KEY WORDS
Guided bone regeneration, heterologous biomaterials, vertical bone augmentation Implant therapy to restore

An edentulous site has gained more popularity in modern dentistry. Successful implant placement requires adequate alveolar ridge dimensions, which are essential to install the implant and provide esthetics and function. However, this condition is not always satisfied in clinical practice. Alveolar bone loss can occur after tooth extraction, trauma, as a result of advanced periodontal disease or failed endodontic therapy [1, 2]. In these situations, bone grafting may be needed. At present a variety of materials and surgical techniques are available for augmenting local jaw bone horizontally or vertically including osteodistraction, inlay and onlay bone grafting, inferior alveolar nerve transposition, and guided bone regeneration (GBR) techniques [3].
GBR is an established and predictable procedure prior to placement of dental implants, in which a barrier membrane is used for space maintenance over a defect and to exclude connective tissue ingrowth into the wound for a successful outcome [4, 5]. Osteogenic cells residing in the osseous wound then can proliferate and differentiate, promoting the restoration of the osseous defect [6,7]. In addition to the surgical technique used, there are many factors that contribute to a successful GBR outcome, including barrier occlusion and stability, the size of the barrier perforations, peripheral sealing between the barrier and the host bone, an adequate blood supply, and access to bone-forming cells [8,9,10] Moreover, in the last few years, several membrane designs have been studied that not only enhance new bone formation, but also stabilize the bone graft below the membrane and minimize the risk of collapse and/or soft tissue ingrowth. . A wide range of bioresorbable and non-resorbable membrane materials have been tested in experimental and clinical studies, including polytetrafluoroethylene (PTFE), expanded PTFE (ePTFE), titanium mesh membranes, collagen, poly(lactic acid), poly(glycolic acid), and their copolymers [11-15]. Reports in the literature have proven the efficacy of both resorbable and non-resorbable membranes to exclude soft tissue cells from invading a grafted defect and promote substantial bone regeneration [16-18]. Unfortunately, there are a number of complications that have been reported with the use of these traditional membranes for regenerative procedures, (e.g., exposure, infection, and collapse), especially with non-resorbable membranes [19,20]. Sometimes, these complications cause failure of the regenerative procedure [8,9].

Recently a high-density polytetrafluoroethylene (d E-PTFE Cytoplast ®) membrane has been designed specifically for bone-augmentation procedures. It seems that even when the membrane is exposed to the oral cavity, bacteria is excluded by the membrane while oxygen diffusion and transfusion of small molecules across the membrane is still possible. Thus, the d-PTFE membranes can result in good bone regeneration even after exposure [21,22]. The purpose of this case report is to illustrate a case of guided bone regneration in the upper jaw. During this procedure, there have been two membrane exposures, in the first stage a d-PTFE membrane and in the second stage a collagen resorbable membrane, but through a careful management of the complications was still possible to get a more than satisfactory result .

CASE REPORT

Patient male 50 yrs refers gingival swelling and mobility of an old metal/ceramic bridge on the second mouth quadrant (2.4 – 2.6). During the clinical examination in addition to the referred problems there are periodontal surveys superior to 10 mm on all surfaces of the dental abutments (rx n.1).

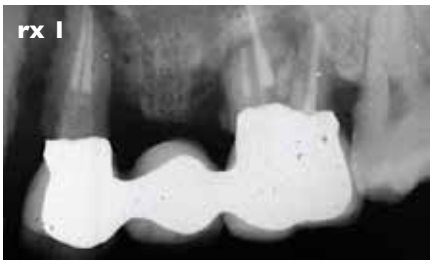
The medical and dental history is negative , the patient refers to smoke less than 5 cigarettes a day, FMPS 100% and FMBS 100%. After having evaluated the possibility of the periodontal recovery of the involved elements, as emergency treatment the elements are extracted. It is given antibiotic cover with amoxicillin 1 gr per die and it is told the patient he will be seen after 2 months in order to check the healing of the tooth extraction site. In the meanwhile the patient undergoes a series of scaling and root planning sessions and he is instructed and motivated about the home dental hygiene. At the revaluation after having reached a sufficient plaque and bleeding control (> 20%) the patient is explained the therapeutic options with their advantages and disadvantages.The patient choses a fixed solution after the reconstruction of the alveolar ridge by using a non resorbable dental membrane and then the insert of two fixtures in place 24 – 26.

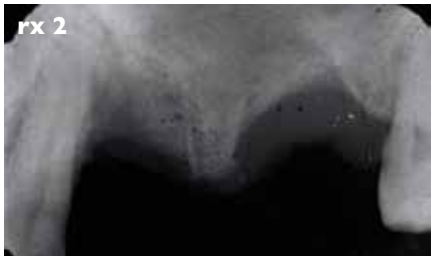
CHIRURGICAL PROCEDURES

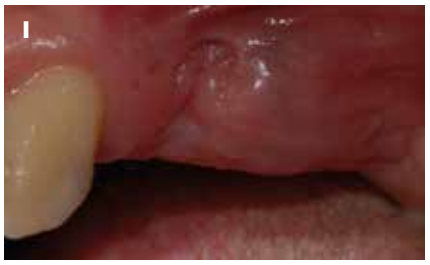
Prophylaxis: it is administered to the patient 1 gr of amoxicillin (zimox) 1h before the operation, and made some rinse with chlorhexidine 2%. It has made an anesthetic with (mepivacaine) 1:50.000 following the bone planes in order to give a deeper sedation and to reduce the bleeding using the adrenaline effect on the periosteum. It is made an incision on the crest and an mesial released incision far away a pair of teeth from the interested zone, it is eleveated a full thickeness flap following the bone plane and removing the tissue of granulation (picture 3-4).To allow a first intention closure of the flap it is performed periostal incision in order to make it passive (picture 5), by using a safescraper it is picked up some autologous bone which will be mixed with some bovine derived bone deproteinized (bio-oss) (picture 6). The membrane in dE-PTFE (De Ore) heve a palatal fixation with some nails (frios), and then it is inserted the particulated bone graft and stabilized the membrane on vesibular side , sutured the passivated flap with some suture points internal matress suture and some simple points to close the occlusal incision line (pictures 6-7-8)

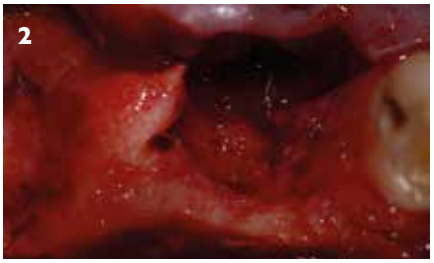
POST CHIRURGICAL INDICATIONS

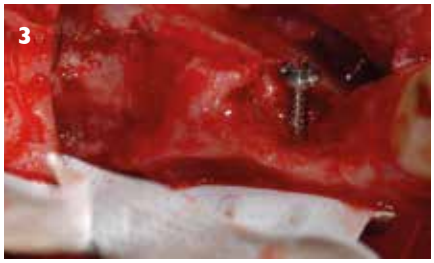
To the patient it is explained to continue the antibiotic therapy for 6 more days (1 gr each 12 h) , anti flogistic each 12 h (nimesulide) daily rinse with chlorhexidine 0,12% 3 times per day for

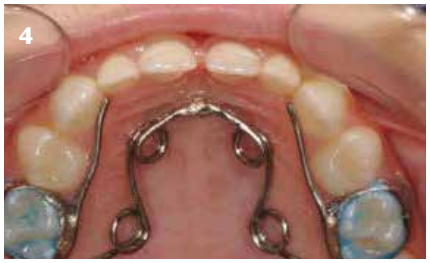


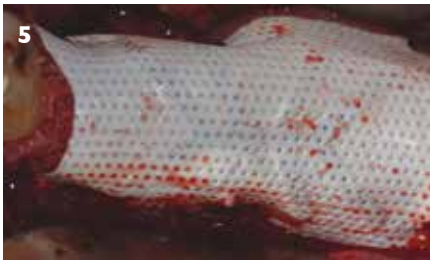


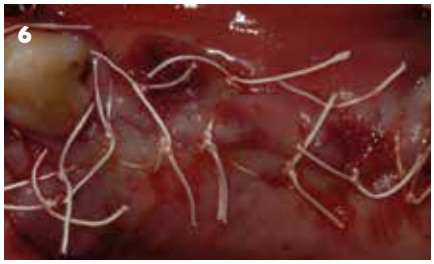


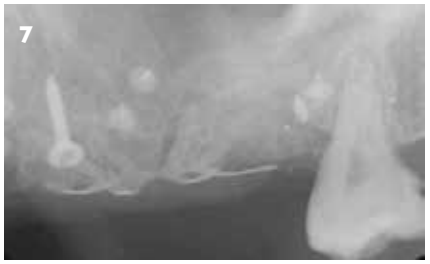


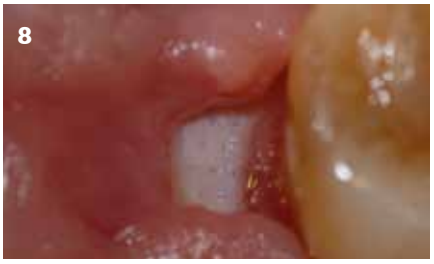


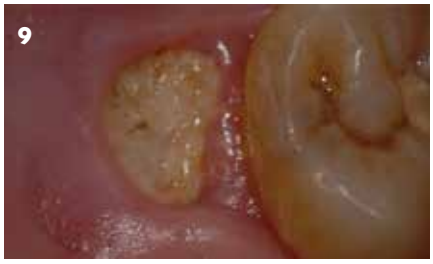


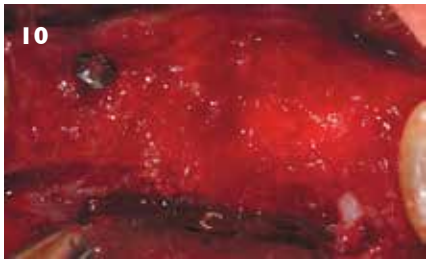








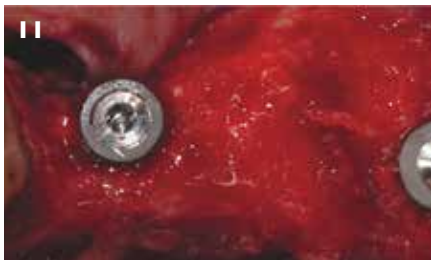


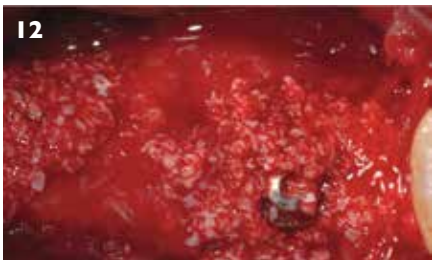


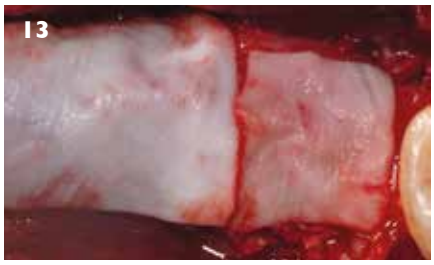
20 days. During the removal of the suture it is found a complicacy due to the exposition of the membrane, probably for the lack of a further mesial internal point on the 27 . Despite the complicacy, there was an epithelial seal on the 27 with absence of probing depth and these was no pus. Usually in these cases it is possible to manage the problem with rinse with chlorhexidine digluconate 0,12% for max. 30 days and weekly appointments in office to remove the plaque , afterwards the contamination of the membrane is excessive ant it is needed to remove it. In contrast with the literature these membranes (de ore) seems able to avoid the infection for a longer period in comparison to other ones (picture 9) (1 months after surgery).
In consideration of this the patient has been thoroughly checked about the plaque control ant the membrane has been removed after 4 months. (picture 10). At the reopening the original defects were filled and it were placed two fixtures in 24 -26 site , respectively 4x10mm and 5x6 mm (CLC SCIENTIFIC ®) , some small dehiescence are filled with deproteinized bovine bone (Bio-Oss geistlich®) and covered with resorbable membrane (Biogide Geistlich®) (picture 11-12-13-14). As it was not possible to obtain a sufficient primary closure of the wound due to the residual scar tissue, it was used a second collagen membrane (mucograft geistlich) to add thickness around the fixtures, especially around 26, and to have more (keratinized gingiva (picture 15); after about 1 month the head of the fixture is seen in position 26. There are no signs of inflammation or mobility. (Picture 15-16) After 6 months fixtures are exposed and after about 1 month the conic abutments are inserted, dental impressions are taken; due to economic problems for the rehabilitation the patient choses a screwed prosthesis in alloy /resins , to obtain the best passivation of the metallic structure the last one is cemented on two cylindrical abutments (picture 16). The final work is screwed in the oral cavity and the patient and enters a periodic program of oral hygiene (pictures 17-18) after 1 year follow up make a rx control (picture 19) (Picture 17-18-19)

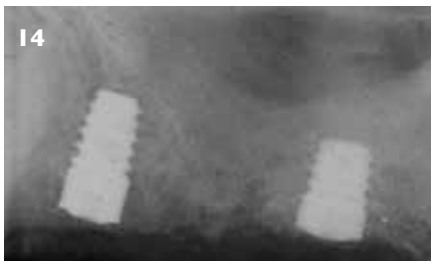
Authors'notes

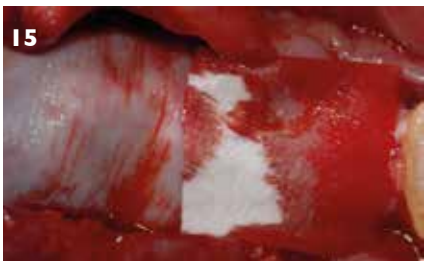
Athough the authors are aware of the weak relevance of a case report, they want to focus on how a post surgery complicacy which might have determined the loss of the case can be managed through the knowledge of the materials and a correct hygienic approach to the maintenance of the clinical examined situation.

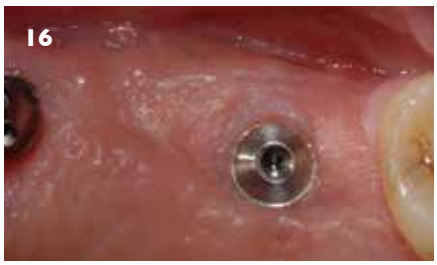


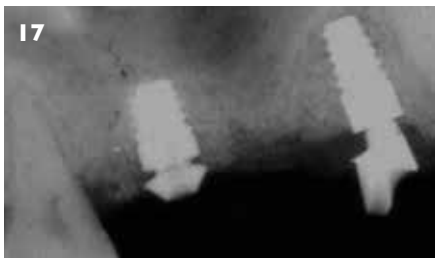


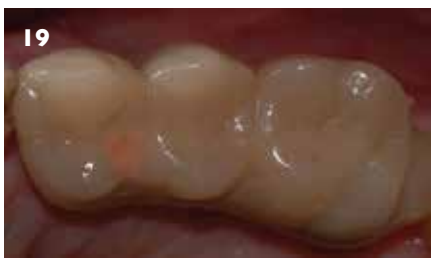












1. Atwood DA. Reduction of residual ridges a major oral disease entity. J Prosthet Dent. 1971;26: 266–79.[PubMed]
2. Atwood DA. Bone loss of edentulous alveolar ridges. J Perio-dontol. 1979;50: 11–21. [PubMed]
3. Esposito M, Grusovin MG, Felice P, Karatzopoulos G, Worthington HV, Coulthard P. The efficacy of horizontal and vertical bone augmentation procedures for dental implants - a Cochrane systematic review.Eur J Oral Implantol. 2009;2: 167–84. [PubMed]
4. Dahlin C, Linde A, Gottlow J, Nyman S. Healing of bone defects by guided tissue regeneration. Plast Reconstr Surg. 1988;81: 672–6. [PubMed]
5. Buser D, Brägger U, Lang NP, Nyman S. Regeneration and enlargement of jaw bone using guided tissue regeneration. Clin Oral Implants Res. 1990;1: 22–32. [PubMed]
6. Nyman S, Karring T, Lindhe J, Plantén S. Healing following implantation of periodontitis-affected roots into gingival con-nective tissue. J Clin Periodontol. 1980;7: 394–401. [PubMed]
7. Karring T, Nyman S, Lindhe J. Healing following implantation of periodontitis affected roots into bone tissue. J Clin Perio-dontol. 1980;7: 96–105. [PubMed]
8. C. Ferretti, U. Ripamonti, E. Tsiridis, C.J. Kerawala, A. Mantalaris, M. Heliotis Osteoinduction: translating preclinical promise into clinical reality Br J Oral Maxillofac Surg, 48 (2010), pp. 536–539
9. B. Le, M.D. Rohrer, H.S. Prassad Screw "Tent-Pole" grafting technique for reconstruction of large vertical alveolar ridge defects using human mineralized allograft for implant site preparation J Oral Maxillofac Surg, 68 (2010), pp. 428–435
10. C.H.F. Hämmerle, R.E. Jung, A. Feloutzis A systematic review of the survival of implants in bone sites augmented with barrier membranes (guided bone regeneration) in partially edentulous patients. J Clin Periodontol, 29 (2002), pp. 226–231
11. Simion M, Scarano A, Gionso L, Piattelli A. Guided bone regeneration using resorbable and nonresorbable membranes: a comparative histologic study in humans. Int J Oral Maxillofac Implants 1996; 11: 735-42.
12. Simion M, Misitano U, Gionso L, Salvato A. Treatment of dehiscences and fenestrations around dental implants using resorbable and nonresorbable membranes associated with bone autografts: a comparative clinical study. Int J Oral Maxillofac Implants 1997;12: 159-67.
13. [Hämmerle CHF, Jung RE. Bone augmentation by means of barrier membranes. Periodontology 2000 2003; 33: 36-53.
14. Bottino MC, Thomas V, Schmidt G, et al. Recent advances in the development of GTR/GBR membranes for periodontal regeneration--a materials perspective. Dent Mater Off Publ Acad Dent Mater 2012; 28: 703-21.
15. Rakhmatia YD, Ayukawa Y, Furuhashi A, Koyano K. Current barrier membranes: titanium mesh and other membranes for guided bone regeneration in dental applications. J Prosthodont Res 2013;57: 3-14.
16. H. Egusa, W. Sonoyama, M. Nishimura, I. Atsuta, K. Akiyama Stem cells in dentistry – part I: stem cell sources J Prosthodont Res, 56 (2012), pp. 151–165
17. H. Egusa, W. Sonoyama, M. Nishimura, I. Atsuta, K. Akiyama Stem cells in dentistry – part II: clinical applications J Prosthodont Res, 56 (2012), pp. 229–248
18. H. Burchardt The biology of bone graft repair Clin Orthop Relat Res, 174 (1983), pp. 28–42
19. C.H.F. Hämmerle, T. Karring Guided bone regeneration at oral implant sites Periodontol 2000, 17 (1998), pp. 151–175
20. M. Chiapasco, P. Casentini, M. Zaniboni Bone augmentation procedures in implant dentistry. Int J Oral Maxillofac Implants, 24 (2009), pp. 237–259.
21. M. Duskova, E. Leamerova, B. Sosna, O. Gojis. Guided tissue regeneration, barrier membranes and reconstruction of the cleft maxillary alveolus. J Craniofac Surg, 17 (2006), pp. 1153–1160
22. N. De Angelis, P. Felice, G. Pellegrino, A. Camurati, P. Gambino, M. Esposito. Guided bone regeneration with and without a bone substitute at single post-extractive implants: 1-year post-loading results from a pragmatic multicentre randomised controlled trial. Eur J Oral Implantol, 4 (2011), pp. 313–325

Curriculum Vitae

WALTER STABLUM

Degree in Dental Surgery and Dental Prosthesis in 1993 conferred by Verona University.

From 2013 Active member of Implant Prosthesis Italian Academy (AIIP) and from 2014 to 2017 member of its Executive Board; from 2012 Active Member of the Italian Society of Osteointegrated Implantology (SIO); from 2012 active member of the Italian Academy of Aesthetic Dentistry (IAED); from 1999 Active Member of Florence Periogroup; from 2009 Active Member of the Group Implant Research (GIR); from 2001 Member of the Italian Society of Periodontology (SIdP) ; From 2007 Member of the Consulta's official speakers of the Italian Dental Association (AIO) ; Speaker in many national congresses. Private Practice in Borgo Valsugana (Trento – Italy) dealing mainly with periodontology and oral implantology.

Best images have their own name

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CGF Concentrated Growth Factors: Protocol and characterization

The CGF is an autologous platelet concentrate, developed by Sacco, in 2006 and obtained from blood samples through a simple and standardized separation protocol, by means of a specific centrifuge (MEDIFUGE 200, Silfradent srl, Forli, Italy), without the addition of exogenous substances. The main feature of the CGF resides in its consistency: it is an organic matrix rich in fibrin, able to "trap" platelets, leukocytes and growth factors; elements that play an important role in the regenerative processes.

CGF-(Concentrated Growth Factors)

Salient features of the CGF:

- Simple, safe and economic
- Natural - 100% autologous
- Thick Fibrin Matrix
- Leukocytes, Platelets and Growth factors
- Variable kinetics release
- Matrix for Bone Graft Material

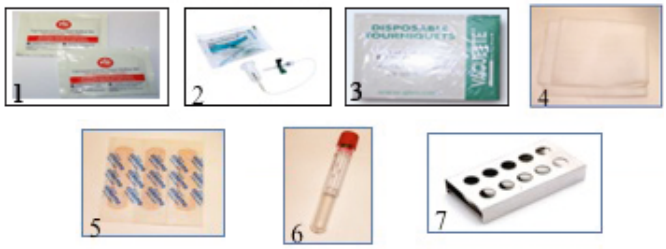
The CGF may be a valuable aid in the field of regenerative medicine, to speed up the process of regeneration. In fact this growth factor concentrate, showed great regenerative properties and versatility (Sohn et al. 2009).

Its use has been proposed in various situations ranging from filling of extraction sockets (Tadić et al., 2014) to the filling of the cavity after cystectomy (Mirković et al., 2015), or in the sinus lift procedure (Kim et al., 2014; Del Fabbro et al., 2013; Sohn et al., 2011). Moreover, it can be used alone or with autologous bone particles or biomaterials (Gheno et al., 2014). Some authors suggest wet the surface of the implants with CGF in order to accelerate the bone-integration (Siebrecht et al., 2002).

- Scanning Electron Microscopy (SEM) studies, have shown that the CGF presents a fibrin network formed by thin and thick fibrillar elements (Rodella et al., 2014).
- Histo-morphological studies (Borsani, Bonazza et al., 2015 submitted) have allowed to see the fibrin network structure and the distribution of blood cells (leukocytes, erythrocytes and platelets) in the CGF.
- Finally, in vitro studies using different human cell lines (Borsani, Bonazza et al., 2015 submitted), have shown that the addition of the CGF to the culture medium, stimulated cell proliferation (Borsani, Bonazza et al., 2015, submitted).

CGF - MATERIALS BLOOD COLLECTION

1. Antiseptic swab
2. Complete butterfly
3. Tourniquet
4. Gauzes
5. Patches
6. Vacuette Test Tubes (Greiner Bio-One GmbH, Kremsmunster, Austria)
7. Tube rack



CGF is obtained using polyethylene tubes (Vacuette Test Tubes), coated with silica micro particles and without the addition of exogenous substances. After collection, the blood samples are immediately centrifuged using a special centrifuge device (Medifuge, Silfradent, Italy).

CGF MEDIFUGE (Silfradent)
Characteristics

• Benchtop centrifuge dedicated to the CGF production, equipped with an appropriate rotor with alternate and controlled speed and with an acceleration always below 300 RCF.
• The medical device MEDIFUGE allows for the use of up to 8 test tubes for
the creation of CGF (fibrin);
• A microprocessor control system allows for the maintaining of a constant speed;
• The exception rotor system with self-ventilation protects the blood sample from
heat exposure;
•The rotor-holding compartment, the closing door and the test tube-holding jackets guarantee biological safety in terms of bio-containment, in the event of test tube breakage;
•The test tube-holding jackets and rotor are built from thermal, antistatic
material that is easy to clean, extract and sterilize in an autoclave at 135°;
•MEDIFUGE is equipped with a decontamination cycle with UVC reflected light;
•Cycle duration 5 minutes at 1,000 revs;
•The electronic control engine and its internal parts require no maintenance;
•Noise levels fall below the standards required and do not exceed 57 dBa.

CGF centrifugation protocol (One step protocol)

30'' acceleration
2' 2,700 rpm/ 735 g
4' 2,400 rpm/ 580 g
4' 2,700 rpm/ 735 g
3' 3,000 rpm/ 905 g
33'' deceleration and stop

At the end of the process, three blood fractions were identified: (1) the upper layer, representing the liquid phase of plasma named platelet poor plasma (PPP); (2) the lower layer, representing red blood cells (RBC) because of mainly contains erythrocytes; (3) the middle layer, representing the solid CGF consisting in three parts: the upper white part, the downer red part (about 0,5 cm from RBC) and the middle "buffy coat*" part (interface between white and red part) *(Figure 1 A,B,C)*.

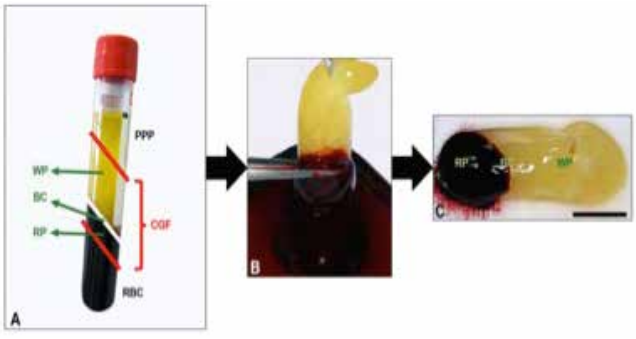


Fig. 1 A,B,C: phases of CGF

CGF- Morphological characterization

Fibrin Network

The use of electron microscopy (SEM), allowed to observe that the CGF fibrin network of the is constituted by thin and thick fibrillar elements *(Figure 2A)*.

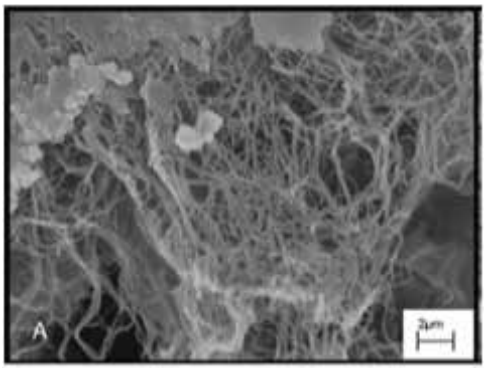


Fig.2A: *SEM analysis of CGF, fibrin network*

Hematoxylin-eosin staining, allowed to observe the architecture of the CGF fibrin network *(Figure 3)*. The images showed that the fibrin network and architecture changed moving from the buffy coat* to the white part. In particular, near the buffy coat* the fibrin network was strictly compact *(Figure 3A)* while far from the buffy coat* became with a larger mesh *(Figure 3B)*.

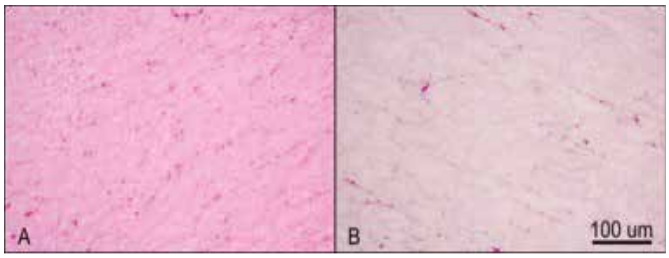


Fig.3: *Architecture of the fibrin network: A) near the buffy coat; B) far from the buffy coat;*

BLOOD CELLS

The May Grunwald Giemsa histological staining *(Figure 4A)* and Hematoxylin-eosin *(Figure 4B)*, allowed to localize blood cells present in the CGF. White blood cells are mainly located in the buffy coat* and dispersed in it, especially in the red part of the CGF; the red blood cells are present only in the red part of the CGF.

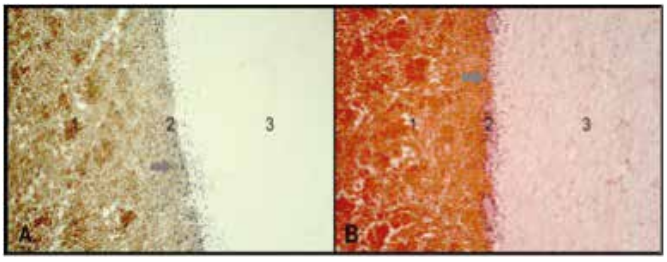


Figure 4: *A) May Grunwald Giemsa; B) Hematoxylin-Eosin*

Using immunohistochemical analysis, with the platelet marker CD61 *(Figure 5B)*, platelets appear principally in the buffy coat* of the CGF, although platelet aggregates have been highlighted also in the white part of the CGF.

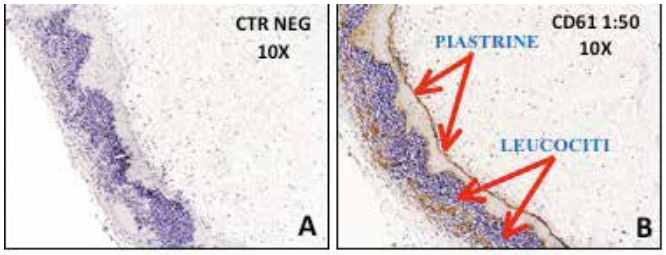


Figure 5: *platelets immunohistochemical analysis using CD61: A) negative control, without CD61; B) with CD61*

* interface between the white part (PPP) and the red part (RBC) of CGF.

CGF - in vitro Growth Factors Release

The in vitro kinetics release of certain CGF growth factors, showed that this is specific to each factor. In fact, some of them have a quick release (1 day) while others have a slower release (up to 6-8 days)*(Figure 6 a,b)*.

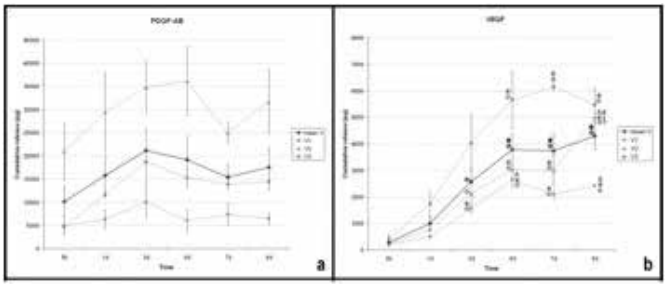


Figure 6: *Kinetics release of a) PDGF-AB and b) VEGF*

TNF-ß reaches its maximum accumulation at day 1 and after decreases (Figure 6 c). So it has a fast kinetic release.

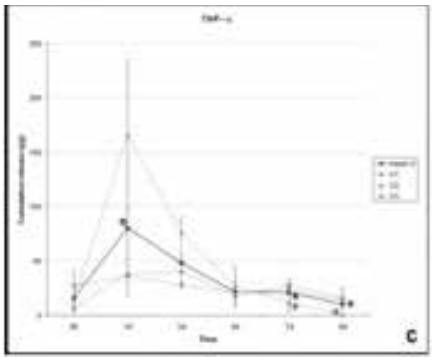


Figure 6 c: *Kinetics release of TNF-ß*

TGF-ß1 e BDNF have a constant accumulation *(Figure 6 d,e)*.

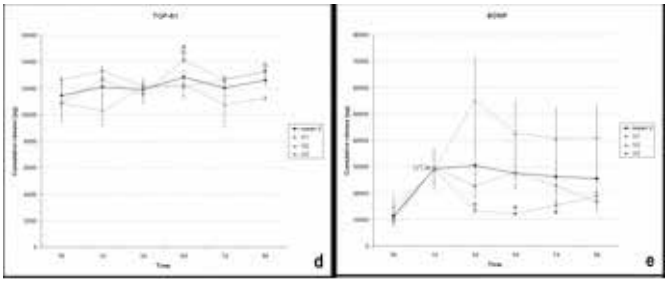


Figure 6: *Kinetics release of d) TGF-ß1 and e) BDNF*

BMP-2 reaches its maximum accumulation on day 8 and IGF-1 on day 6 *(Figure 6 f,g)*.

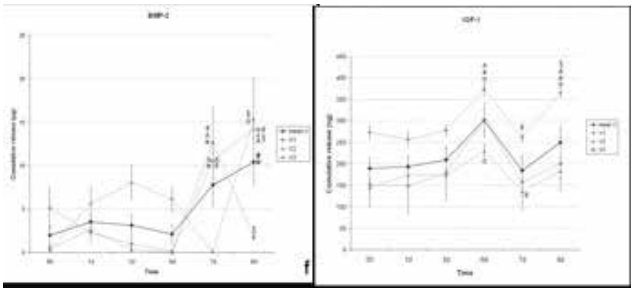


Figure 6: *Kinetics release of f) BMP-2 and g) IGF-1*

References

1.Sohn DS, Moon JW, Moon YS, Park JS, Jung HS. The use of concentrated growth factors (CGF) for sinus augmentation. Implant Journal(Japan). 2009;38:25-35

2.Tadić A, Puskar T, Petronijević B. Application of fibrin rich blocks with concentrated growth factors in pre-implant augmentation procedures. Med Pregl. 2014; 67:177-80.

3.Mirković S, Djurdjević-Mirković T, Pugkar T. Application of concentrated growth factors in reconstruction of bone defects after removal of large jaw cysts--the two cases report. Vojnosanit Pregl. 2015 72:368-71.

4.Kim JM, Sohn DS, Bae MS, Moon JW, Lee JH, Park IS. Flapless transcrestal sinus augmentation using hydrodynamic piezoelectric internal sinus elevation with autologous concentrated growth factors alone. Implant Dent 2014; 23: 168-174

5.Del Fabbro M, Bortolin M, Taschieri S, Weinstein RL. Effect of autologous growth factors in maxillary sinus augmentation: a systematic review. Clin Implant Dent Relat Res 2013; 15: 205-216

6.Sohn DS, Heo JU, Kwak DH, Kim DE, Kim JM, Moon JW, Lee JH, Park IS. Bone regeneration in the maxillary sinus using an autologous fibrin-rich block with concentrated growth factors alone. Implant Dent 2011; 20: 389-395

7.Gheno E, Palermo A, Buffoli B, Rodella LF. The effectiveness of the use of xenogeneic bone blocks mixed with autologous Concentrated Growth Factors (CGF) in bone regeneration techniques: a case series. J Osseointegr 2014; 6: 37-42

8.Siebrecht MA, De Rooij PP, Arm DM, Olsson ML, Aspenberg P. Platelet concentrate increases bone ingrowth into porous hydroxyapatite. Orthopedics. 2002 25:169-72.

9.Rodella LF, Favero G, Boninsegna R, Buffoli B, Labanca M, Scarì G, Sacco L, Batani T, Rezzani R. Growth factors, CD34 positive cells, and fibrin network analysis in concentrated growth factors fraction. Microsc Res Tech. 2011; 74:772-7.

10.Borsani E., Bonazza V., Buffoli B, Cocchi M.A, Castrezzati S., Scarì G., Baldi F., Pandini S., Licenziati S., Parolini S., Rezzani R., Rodella L.F. Biological Characterization and In Vitro Effects of Human Concentrated Growth Factor Preparation: An Innovative Approach to Tissue Regeneration. Submitted

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1.

ACTIVE TOUR

If you're a dynamic person, and if after 6 hours of Exhibition the only thing you want to do is some exercise and open your mind, the active tour is perfect for you. As we know Poznan hosted the European football championship in 2012, after that, many structures have been built and others increased their value. The stadium of Miejski is the biggest sport building of the city holding 43 thousand visitors and if you are a football addicted you can't go back in your hometown without taking at least a walk into this sport hot spot. The outdoor activities are your daily choice? Therefore you might think to pay a visit at the Malta Lake, not only testing your running skills surrounded by lush vegetation, but also choosing a sport between ski, rowing, swimming, tennis or ice-skating. Looking for places to discover? The Morasko Nataural Reserve is what you need. Situated at the northern edge of Poznan, this natural reserve contains seven meteor craters; the biggest one contains a lake discovered in 1914. There are several marked hiking-trails where is possible to get lost into the wild, beside that, you can also enjoy cycling through the park. The Wartha River crosses the city of Poznan giving it that extra touch. Along the river-bank there are many activities to do, barbecue with friends, jogging, visiting the Kontener Art and even fishing. On top of that, from the biggest bridge on the river, the Sw. Roch's bidge, you can witness spectacular sunsets.

2.

KICKBACK TOUR

If your watchword after work is "relax", this has to be your choice. Like every major city has its own symbol square, Poznan has the Old Market square: nothing better to be seated in one of the beer gardens watching this particular architectural and colorful square. Beside of that they also offer a wide variety of regional and international cuisine. The Grand Theatre is a neoclassical opera house, and the park in front of it is the best place to lie down on the grass and appreciate the environment, where the fountain in the park is a good solution to refresh and chill out during hot days. The perfect mix between great entourage and culture is in the Cytadela. 100 acres create the largest park in Poznan. Inside of this area it is possible to find Poznan's Museum of Armaments and the Museum of Army. Looking for some urban art? Jezyce is definitely your neighborhood, one of the coolest area of Poznan famous for its street art, a little bit off the city but perfectly reachable with the tram. Enjoy this place stopping in one of the Berlin-like café or taking an ice cream, many suggest the "Wytwornia Lodow Tradycyjnych". Poznań bars are flexible, no matter what the official closing times are, most bars and pubs will stay open until the last customer has stumbled out. Most nightspots are concentrated around the Old Town Square area, but also in ul. Nowowiejskiego and ul. Taczaka.

3.

CULTURAL ENTERTAINMENT

"A people without the knowledge of their past history, origin and culture is like a tree without roots." (Cit. Marcus Garvey). Some people when they travel have the desire to know everything about a place: curiosities, history and legends. If you see yourself in this description this is your kind of tour. Visit the parish church of Fara, it's a really famous place in Poland due to its unique baroque facade. The construction of this building started in the beginning of the 16th century and ended in the first period of the 20th century, this long period implicated the mixture of its architecture. The top of Przemysl's Hill it's an emblematic place in Poznan because of the monument of the 15th Poznan Cavalry Regiment that participated in both world wars. In this place lots of patriotic celebrations are carried out. Want to know more about Polish history? The Cathedral Island contains many relics of the story of this country. This gothic building has a tall and ascending structure; inside of that there are the catacombs, more specifically, the graves of the rulers of the Piast dynasty. The "Muzeum Historii Miasta Poznania" otherwise called the Historical Museum of Poznan, hold exhibits dating back to the earliest times. Starting from the 10th century until the 20th century, this museum contains all the history of this city, enclosed in this wonderful building. Remember that every Monday the museum is closed.

Polish delicacy

Whatever was your sightseen's choice, you should try all the dishes of the polish tradition.

Bigos
Most commonly known in English as the haunter's stew, finely chopped meat of various kinds, stewed with sauerkraut and shredded fresh cabbage. The meats may include pork, beef and veal, poultry and game, as well as charcuterie, especially various kinds of kiełbasa (particular smoked type of Polish sausage).

Kapusta Zasmażana
This delightful side dish consists of pan-fried and onions, sausage, spices. This goes well with crusty country bread.

Zupa
Generally the main course of a Polish meal is the soup "Zupa". There are many and different, two examples are: Żurek is a rye soup with sausage and bacon, and Grzybowa which is a mushroom soup with homemade noodles.

Placki Kartoflane
An other delicacy that is a must-to-taste is the Placki Kartoflance, a potato pancake served with Chanterelle mushrooms cream sauce. This dish is served with different sides, spinach, mushrooms and even sometimes stew.

Pierogi
This dish is one of the most traditional meal of Poland. Even if in Poland they eat Pierogi only twice a year, Christmas and Easter time, if you want to taste it you can easily find it in all the restaurants. They are dumplings filled in different ways. They could be salted, served with smoked bacon, or sweet, served with buttered breadcrumbs. All the guidebooks of Poznan suggest getting lost in the city finding all the typical restaurants to taste all these delicacies, the most quoted are:

Wiejskie Jadło
Powder blue walls with painted flowers along the top of the windows, large white paper lamps, country wood tables and benches, straw wreaths accented with red ribbons. Located at Stary Rynek 77 in the old town.

Chłopskie Jadło
Located at Kantaka 8/9, Chłopskie Jadło is still inside the city centre, but outside the old town. Country wood tables, white or powder blue walls, hand-painted flowers around the windows.

Papierowka
Situated in the central area of Poznan, this restaurant offers polish traditional dishes, the menus aren't in English but all the staff can help you with the translations.

It's true that now you're reading this because you're here in Poznan to work, but why don't you take advantage of this opportunity to benefit of this place and of all the fantastic attractions that are held in it?

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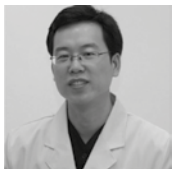
Scientific topic

Speaker: Bingzhen Huang M.D.& Ph.D
Title: CGF&AFG: Basic principle and clinical application

Abstract:
CGF (Concentrated Growth Factors), AFG (Autologous Fibrinogen Glue) are autologous fibrin and fibrinogen without any additive (anticoagulant and activator). In this presentation, I will show you how to make autologous fibrin, fibrinogen, thrombin easily and discuss with you the basic difference of autologous blood production (PRP, PRGF, PRF, CGF, AFG) and how and why these productions work.



Speaker: Dr. Liu Shuangbin
Title: Treatment of aesthetic and structural alterations of the Mucogingival Junction (MGJ)

Abstract:
The purpose of this course is to provide a brief analysis of the gingival reconstruction of teeth and implant from an aesthetic and a structural point of view, according to scientific evidence and through the clinical experience of the operator. The course will provide a wide range of information and procedures of reconstructive surgery. Limits, errors and possible complications will be analyzed supported by extensive clinical cases.

Business topic

Speaker: Emanuele Elo Usai
Title: 32 Dental marketing ideas for successful dentists

Abstract:
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No. 1 / wtt / January 2016, Cologne

IDS 2017 gains momentum

More than 2,200 exhibitors are expected at the International Dental Show in Cologne – top ratings from participants of IDS 2015 confirm the position of IDS as the world's leading trade fair for the dental industry.

In just over 400 days, the next IDS will open its doors in Cologne from 21 to 25 March 2017. And the preparations for the 37th International Dental Show are already picking up speed. A new thing to note is that the application deadline for exhibitors has been pulled forward to 31 March 2016. By sending out the application form at the beginning of December, the GFDI Gesellschaft zur Förderung der Dental-Industrie mbH, the commercial enterprise of the Verband der Deutschen Dental-Industrie e.V. (VDDI) (Association of German Dental Manufacturers) and Koelnmesse have given the official go-ahead for the next edition of the world's largest trade fair for dental medicine and dental technology. Based on the applications received by 31 March, the GFDI and Koelnmesse will begin with the hall planning in April.

Even though the fair is still a long way off, numerous inquiries from businesses about stand areas have already reached the Koelnmesse. Not least because of this, after the record result of IDS 2015 with 2,199 exhibitors from 59 countries (foreign share 70 percent) and around 139,000 trade visitors from 152 countries (51 percent), the organiser is expecting a similar high level of interest from the entire dental world in 2017 as well. "According to a representative survey, about 90 percent of the exhibitors from IDS 2015 are planning to participate at IDS 2017," says Dr. Martin Rickert, Chairman of the VDDI. "The huge interest - already in the run-up to the official application period - shows that IDS is indispensable for all those people who want to operate successfully in the dental industry." Katharina C. Hamma, Chief Operating Officer of Koelnmesse added: "Pulling the application deadline forward enables us to respond to individual customer requirements more accurately and support the exhibitors and trade visitors with manifold services and offers for their successful trade fair participation at an early stage."

IDS 2015 stood out once again with its strong growth and set new records for all of the trade fair's key figures. With an expanded exhibition surface of 157,000 square metres (+6.2 percent) as well as an increase in the number of visitors and exhibitors, the past event quite rightly carries the title the "biggest IDS of all time" so far. After the record year in 2015, at the next event the organisers are awaiting over 2,200 companies at the International Dental Show. Koelnmesse and GFDI again not only expect a lot of interest from German suppliers, but also particularly a strong international presence. Even now many inquiries from potential new exhibitors are coming in from abroad. In addition, more than a dozen foreign group participations are expected.

The first day of the trade fair (21 March 2017) will again be dominated by the "Dealer's Day". This day will focus on dental specialised traders and importers and will provide all interested parties an opportunity to attend the sales talks at the exhibitors' stands.

Top marks from exhibitors and visitors for IDS 2015.
The undisputed positioning of IDS as a world-leading international trade fair for the dental industry has also been impressively confirmed by the results of an independent exhibitor and visitor survey on IDS 2015. The event brought together in Cologne decision makers from around the world from the dental profession, the dental laboratories, the specialist dental trade and the dental industry. This was a cause of great satisfaction among IDS exhibitors. 99 percent of German suppliers reached their key customers from the domestic market and 82 percent their key accounts from abroad. Of the foreign exhibitors, 98 percent had contact with their international customers and 95 percent with their German key accounts. 95 percent of the exhibitors established new contacts to potential German buyers. At the same time 79 percent of the German and 98 percent of the foreign suppliers won new international contacts. The quality of the visitors was therefore correspondingly high: 79 percent of the German and indeed 89 percent of the foreign visitors were involved in the purchasing and procurement investments of their companies. Thanks to the success of the trade fair, 90 percent of the German companies and 91 percent of the foreign companies are planning to exhibit at IDS again in 2017.

Conversely, the IDS visitors were also satisfied all-round: More than three quarters of those questioned are planning to visit the International Dental Show again in March 2017. The comprehensive product range and numerous new products ensured that 82 percent of the German and 80 percent of the foreign trade visitors rated the exhibition offerings of IDS 2015 as either very good or good. Overall, 95 percent of the visitors questioned would recommend visiting IDS to business partners.

***IDS (International Dental Show)** takes place in Cologne every two years and is organised by the GFDI Gesellschaft zur Förderung der Dental-Industrie mbH, the commercial enterprise of the Association of German Dental Manufacturers (VDDI) and is staged by Koelnmesse GmbH, Cologne. Your contact in case of queries:*

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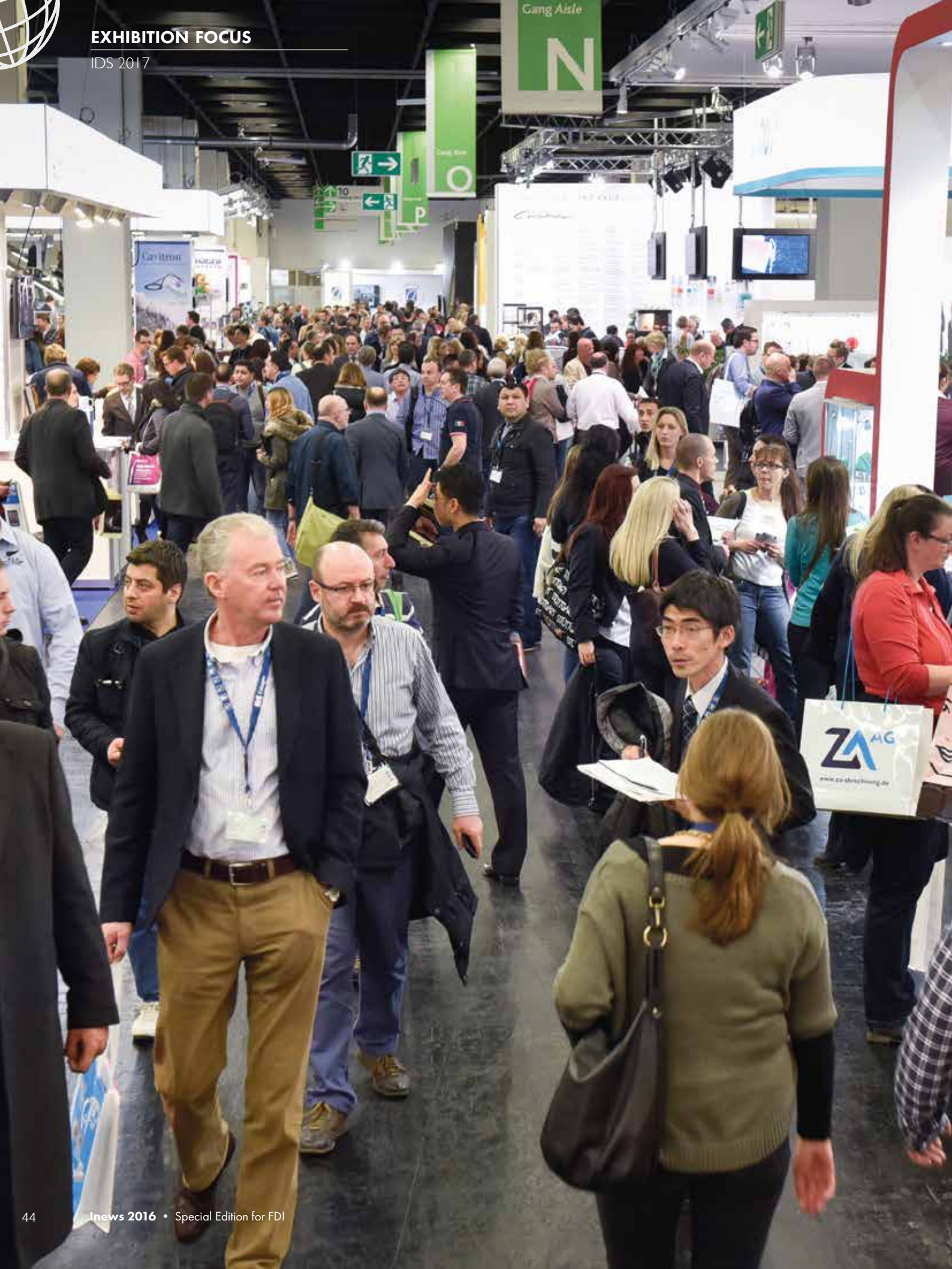
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No. 4 / mde / August 2016, Cologne

High need for therapy is turning periodontology into the centre of attention at the International Dental Show 2017

Genetic and microbiological diagnostics for risk assessment - surgical and non-surgical methods - regenerative treatment - a main theme of IDS 2017.

There are three reasons why periodontology will continue to gain significance in the future: teeth can remain preserved up to an increasingly older age, whereby they then frequently require periodontal treatment. If an implant is inserted after the tooth has been extract, at least a professional peri-implantitis prophylaxis is needed, which follows similar protocols as the periodontal prophylaxis. Finally, one should take into consideration the fact that the course of periodontal diseases is influenced to a considerable extent by genetics; even in the case of conscientious domestic oral hygiene, support from the dental team may thus be essential. All of this speaks in favour of regularly informing oneself extensively about the state of technology in the field of periodontology - ideally at the International Dental Show (IDS), 21 to 25 March 2017 in Cologne. Interesting innovations with direct benefit for the planning and execution of a periodontal therapy pertain to a host of different research areas, in which the dental industry is engaged. Diagnostic methods, instruments for the non-surgical therapy and for surgery, chemical and mechanical aids for prophylaxis or biological growth factors for the regeneration of tissue as well as laser applications - innovations for use in the practice are available in all areas of periodontology.

Diagnosis

The individual risk of a patient contracting a periodontal disease and the speed at which it progresses can be assessed more and more accurately today using different methods. The genetic predisposition is a starting point. Here, polymorphisms evidently play a significant role in the genes of the interleukin 1 gene family (IL-1). Molecular genetic tests enable the dentist to assess the genetically-based predisposition to inflammation and on taking further risk factors into consideration (i.e. smoking) to determine the overall risk for the individual patient.
Beyond this, molecular biological analysis kits enable the more accurate assessment of an existing inflammatory process. Hereby the composition of the subgingival flora as well as the concentration and type of marker germs is examined. The results provide valuable tips for the dental measures and particularly answer the question as to whether scaling or root planing suffices as a means of professional prophylaxis or whether the use of antibiotic adjuvants is necessary. Depending on the severity of the disease and the prognosis, soft tissue surgery may also be necessary.

Periodontal therapy

A wide range of offers for the professional prophylaxis and therapy of periodontal diseases will be on display for examination and (quite literally) tangible understanding: Instruments for the classic probing, for the hand curettage, as well as sonic or ultrasonic, air polishing devices and air scalers. Furthermore, lasers are also gaining significance for example due to the expansion of the spectrum around blue light (445 nanometres). A main application concerns the reduction of germs in the scope of periodontal treatments, whereby the possibility of a low-pain, tissue-conserving procedure that involves little blood loss could prove to be the main advantages. If the aspired maximum pocket depth (as a rule 6 millimetres) cannot be maintained long-term, surgery may help. Whereby today the trend is moving towards minimally invasive methods. In this connection, IDS is presenting among others laser applications for cutting or removing oral soft tissue, state-of-the-art micro-surgical sewing materials and effective visual aids (i.e. magnifying glasses and operation microscopes).
Beyond this, a regenerative therapy can even reproduce lost periodontal structures. At IDS, the visitor can gain an overview of enamel matrix proteins (EMPs), absorbable membranes and bone replacement material. The "reward" can be the reduction of the probing depths and a clinical attachment gain.
More than 30 million German citizens require treatment for periodontal diseases. Around 10 million of whom can even be categorised as being serious cases and bearing the demographic change in mind the significance of periodontitis will no doubt further increase. Dr. Markus Heibach, Executive Director of the Association of German Dental Manufacturers e.V. (VDD), stressed: "At the International Dental Show in Cologne one can experience close up how the prevention and therapy options have further developed. With tangible innovations and direct contact to the respective manufacturers, IDS offers all visitors real added value."

The IDS (International Dental Show) *takes place in Cologne every two years and is organised by the GFDI Gesellschaft zur Förderung der Dental-Industrie mbH, the commercial enterprise of the Association of German Dental Manufacturers (VDDI). It is staged by the Koelnmesse GmbH, Cologne. Your contact in case of queries:*

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IDEA Dakar 2016

After the success of the first edition, IDEA (International Dental Exhibition Africa), the dental trade-show organized by UNIDI - Italian Dental Industries Association under the patronage of the Senegalese Ministry of Health, is going to come back to Dakar from 25 to 27 October 2016.

This year the local visitors - dental professionals coming from all the African Countries - will have the opportunity to improve their technical skills and enhance their scientific knowledge thanks to an interesting programme of workshops and lectures, to meet the leading international manufacturers and to buy consumables at competitive prices.

Last year IDEA brought more than 70 dental companies to Dakar to meet more than 1.000 dental professionals and distributors coming from all the African Countries. UNIDI managed to invite a numerous group of operators from several African Countries giving them the opportunity to get in touch with international dental manufacturers in their own continent. In fact, the Exhibiting companies expressed their satisfaction for the presence of visitors and buyers that allowed them «to discuss and evaluate the market potential in their respective nations» and «to establish a solid presence in Africa» (Euronda).

Furthermore, the intense scientific program, including the congress organized by the ANCDS (Association of Senegalese Dentists) as well as events organized by UNIDI and the exhibitors themselves, attracted a large participation of dental professionals. Importers, distributors, sales agents, dental surgeons, dental technicians, hygienists and assistants who visited IDEA had the opportunity to buy consumables at competitive prices and take advantage of financing options.

This year IDEA will be held in the beautiful Conference Center of the King Fahd Palace Hotel, Dakar, from 25 to 27 October. In order to plan a comprehensive scientific program, UNIDI is working in close cooperation with the local associations and partners: the ANCDS, the National Order of Dental Surgeons of Senegal, the National Association of Dental Technicians, the association Amicale des Femmes Chirurgiens Dentistes du Sénégal and the University of Dakar Cheikh Anta Diop. Furthermore, the scientific program will be enriched by practical workshops organized by the Exhibiting Companies.

For further information visit our web site
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Positive signs of economic progress are emerging in the Italian dental market, but the success of Expodental Meeting is also due to the efforts made by UNIDI – the Italian Dental Industries Association – and its Organizing Committee and by the Exhibiting Companies.

Last year's Exhibition in Rimini was the test bench for UNIDI's efforts towards internationalization. This year the international participation has increased by 72%, with 563 new foreign visitors from 71 Countries and a large Delegation with more than 60 buyers coming from 21 countries: Albania, Algeria, Angola, Saudi Arabia, Armenia, Azerbaijan, Bosnia-Herzegovina, Bulgaria, Congo, Ivory Coast, Ethiopia, Ghana, Kazakistan, Kuwait, Morocco, Nigeria, Russian Federation, Serbia, South Africa and Tunisia. Foreign delegates met the Italian Companies in more than 800 b2b meetings. A special highlight on the strong African presence in the Delegation, which makes Rimini one of the most important European platforms where Companies can directly meet African buyers. Together with IDEA (the International Dental Exhibition organized by UNIDI in Dakar from 25th to 27th October 2016), this is part of UNIDI strategy to help its Companies to penetrate the African emerging market. From a logistic point of view, Rimini turned out to be a perfectly appropriate location to welcome international visitors.

An event that is becoming more and more international, with qualified visitors and a strong drive towards innovation and excellence: the success of this first edition of Expodental Meeting represents a good starting point to become one of the most relevant dental shows in Europe.

UNIDI is already working to set up the next edition (Rimini, 18-20 May 2017), by exploiting the expertise of the newly elected Board of Directors. In fact, many digital companies are represented in the Board and have started a project aimed at showing the complete digital workflow directly inside Expodental Meeting.

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• Polystom

The Russian leader in development and production of materials for bone tissue regeneration offers Hydroxyapol, Kolapol, Parodoncol (membranes), Indost sponges, Indost-Gel, Trapex-Gel.

These products are among the best in terms of price and quality. The number of various operations performed by now which depended for success on the above products and are related to such branches of medicine as surgical stomatology, maxillofacial surgery, ENT, orthopedics and traumatology has exceeded 2,000,000.

The range of POLYSTOM products can be used in nearly all fields of dentistry, such as dental surgery, therapeutic dentistry, parodontics and dental implantation. The materials are also used in neurosurgery. All of our products are biocompatible, biodegradable, non-cytotoxic, and cause no allergic reactions.

POLYSTOM cooperates with leading research centers in Russia, and is a permanent member of Russian and international exhibitions. In 2003, the team of POLYSTOM sponsored authors was awarded the State Prize of Russia for research in science and technology and for development of calcium phosphate materials used in medicine and healthcare.

www.polystom.com // office@polystom.ru
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• MDT

MDT's "Superiority Through Technology" allows the company to achieve worldwide recognition as the makers of Best Value Diamonds. Across six continents, MDT provides tailor made programs for each individual market while launching Rotary Instruments to best serve the dentist's local specific needs.
Adopting SIT - Systematic Inventive Thinking, a method developed in Israel, MDT has developed the 60% exposed diamond, which offers More Diamond per Diamond®. These diamonds provide a faster cut resulting in shorter chair time and decreased handpiece wear from having to apply extra pressure to make diamonds cut.
This, combined with longer life creates an improved dentist and client experience.
Now, another breakthrough product is released from MDT's SIT process:
An advanced Blister Pack for diamond and carbide burs!
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- UDI individual marking
- Color/grit identification
- Perforated five cells
- Peel Free

Yes, MDT's blister pack can be entered into the autoclave: AS IS!
MDT – Superiority Through Technology

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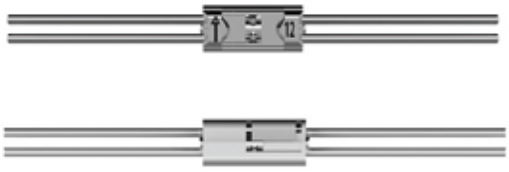
Visit us at FDI 2016, Hall 7A, Booth A126

• MARIOTTI presents implant-motors in three versions

Mariotti's technical staff working side-by-side with implantology experts, introduces the implant motors "MiniUniko" line.
MiniUniko line combines ease of use and practicality with second-to-none performances concerning the torque value, it's endowed with full safety and operating precision with every implant system and it's compatible with handpieces and contra-angles (with or without optic fiber) found on today's market. The device set includes the control-unit with a wide display and a capacitive "touch" keyboard for an immediate use, the brushless motor of the newest generation and multi-function foot-pedal. The three versions are: LED light version (MUN.CL), the classic version (MUN.C) and the easy version (MUN.F).
The units, designed and manufactured in Italy, combine the newest generation brushless motor for an accurate adjustment up to 40,000 rpm and 80 Ncm with an immediate use thanks to the new practical peristaltic pump and the easy touch keyboard.

info@mariotti-italy.com // www.mariotti-italy.com

• Leonardo - The Innovative Rapid Palatal Expander



Rapid palatal expander Leonardo has several innovative features thought to simplify the work of technicians and doctors, and to be easy to use for the patient. The main features are:
Stability. The two telescopic components of Leonardo's body are always overlapped for the maximal longitudinal and torsional rigidity and high stability, at its maximum opening. The inbuilt housing of the arms and their laser welding grant an highest resistance and a perfect oral hygiene.
Compact dimensions: its body design minimize encumbrance into the mouth, and increase patient's comfort.

Easy-to-use:
- chamfered hole to simplify the insertion of the opening tool;
- lateral screw for fast opening/closing in laboratory;
- graduate scale for an immediate reading of the opening level achieved

Safety:
- mechanical stop to prevent disassembling at the maximum open;
- mechanical anti-unscrewing system to avoid unwished opening into the mouth.

Leonardo is protected by international patents.

www.siaorthodontics.com // info@siaorthodontics.com
Visit us at FDI 2016, Hall 8, Booth B39-40

• BonMaker

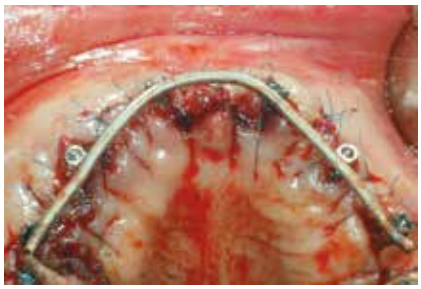
BonMaker is an in-house advanced system for processing a patient's own extracted teeth into 'Auto-Teeth bone' graft material. A bone graft particulate that is created from the patient's own body, is generally considered the gold standard in dental biologics. However, the processing of an autograft usually requires a more complicated surgical procedure with pain and longer healing period. The BonMaker solves the usual problems encountered with autografts. With the BonMaker auto-teeth bone graft particulate processing, dentists can manufacture bone graft material specific to the patient by using the patient's own extracted teeth.

The BonMaker takes the prepared patient's crushed tooth fragments and processes them into bone graft particulate in just over 19 min 50 sec. The consumables required are three tiny, color-coded bottles of BonReagent which come at a fraction of the cost of other bone graft materials. Furthermore, with a processing time of just over 19 min 50 sec for powder type and 35 min 50 sec for block type, the particulate and block can be manufactured in the dental clinic or hospital.
A single processing cycle can yield up to 3cc of bone graft material and it brings the best clinical and economic effect compare to any other bone graft materials. This device is acquired medical CE and ISO13485.
"Do you want to use bovine bone or your own bone?"

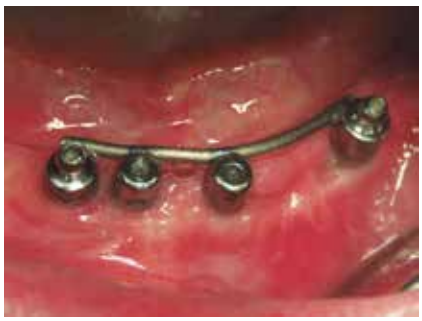
www.bonmaker.net // info@bonmaker.kr

• The Revolutionary technique

• Rigid fixation and immobility of the implants has been recognized to have a significant impact on the peri-implant tissue response in immediate implant loading
• The rigid fixation reduces the mechanical stress exerted on each implant and prevents the risk of micromovements in relation to the surrounding bone
• The concept of intra-oral welding as a suitable technique to manufacture a prosthetic device for edentulous cases in the same day of surgery has been well accepted in the last years



The I.O.W is based on the fusion or resistance spot welding, a process which is characterized by the union of two metallic surfaces through the sharing of atoms, forming the crystal lattice in the join zone welding spot



Advantages
1) Predictable passive fixation and immobility of implants in the early stage of healing
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3) Reduction of costs
4) Higher resistance and longer durability of the prosthetic frame work
5) For dental laboratory. A simple and low cost technique to create the frame work.

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MESA has been producing Chrome Cobalt discs for CAD/CAM milling systems for over 10 years. During this period of time, CAD/CAM discs have been supplied in many different materials and shapes, meeting up the continuous changes of the market requirements.

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MESA range includes also Cobalt Chrome Bars for CAD/CAM processing specifically designed for the manufacturing of implant abutments. They are available in different Co-Cr based materials, sizes, diameters and lengths. Their specifically designed shape is intended to reduce the milling costs and material scraps typical of discs.

With over 40 years' experience as alloys manufacturer, MESA guarantees the total absence of any carcinogenic or toxic element in its CAD/CAM production. That's because MESA never forgets its pillar milestone: the health and well-being of patient and dental technician.

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• The EVOlution of species at DenTag

It is known that simple dental instruments such as curettes or double probes may injure the operator's hand or lacerate the glove (with the opposite working points). The possibility of injury is during use, handling or passing the instrument between Assistant-Dentist-Assistant while performing the procedures on the patient.

Directive 2010/32/EU - prevention from sharp injuries in the hospital and healthcare sector, also it states that it's necessary to prevent workers' injuries caused by all medical sharps and pointed devices. Instruments with a handle 100, 105 mm are too short and the tips, even if they are turned contrary than working one, very often touch on the back of his hand. Instead, what it can do as an additional preventive action is to choose, when buying or replacing, one instrument with a long handle. The longer instruments can be wrapped exactly like the other and, in the event that the dentist uses cassettes or trays for sterilization of small size, it will be sufficient to put the instruments in the direction of the longer side. That's another reasons to choose new DenTag "EVO" family of instruments. Ask for more…

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Interview with G.COMM

Tell us something about G.COMM's history.

ur roots are in the Italian region known as Brianza, a land of established manufacturing traditions. G.COMM in 10 years of activity has gained a considerable reputation as a manufacturer of dental and electromedical equipment and supplies, focusing on components for dental units and in particular in the production of lamps and electric micromotors for the dental practice.

Your motto is "Quality, design, innovation". How does it influence your activity?

These three words identify what today makes G.COMM a benchmark among dental manufacturers. Thanks to our know-how, we can produce and sell with our own brand competitive, reliable, high-quality products that make the dentist's work easier and contribute to the patient's well-being, at the same time fully complying with the sanitary regulations, hygiene standards and environmental safety.
From the project development to its engineering and manufacturing, G.COMM manages all the production phases, giving to the company a high level of flexibility.

We guarantee an excellent pre- and post-sales assistance, but we also design and create custom-made products under the customers' specific, personal request to help them find the best and finest solution to their dental unit.
Customer care and passion for our products are the basis of the growing success of G.COMM around the world, distributing today in more than 30 countries. But we are determined to expand ourselves and experience new markets all around the world.

Dental lamps are your core products. How do the different models meet the dentist's demands?

In G.COMM we have put a special focus on the quality of the dentist's work. This mission inspired the design and production of our lamps. For instance, the motto of our IRIS VIEW lamp is: "Our target: your work".
We believe that quality of work is strictly related to the possibility of perceiving the smallest details in the area of operations. Out of this belief comes Iris View, a dental light with a Full HD videocamera (1920x1080px) and autofocus that allows to view the area of treatment with a 30x optical zoom.

Iris View permits to have a detailed image of the operating area, highlighting details which are difficult to see with naked eye, amplifying the visual capabilities of the professional and relieving eyestrain, leading to important progress in work methods.

Photo : Iris View dental lamp

The use of the videocamera improves communications both with the patient and specialized personnel. In the diagnosis phase diseases can be clearly shown on the monitor, making comprehension of the problem simple and immediate. During the operating phase, specialised staff can follow the evolution of the operation in real time and at the end of the work results can be assessed.

Photo : The use of videocamera

Iris View allows recording and broadcasting the operation in Hi Definition, making easy the connection to a wide range of devices. This opportunity is quite useful in various scientific contexts such as conferences, conventions and university lectures.

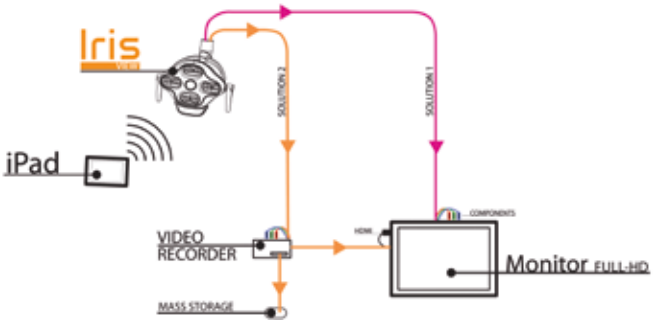

Photo : Connection to a wide range of devices

Iris View is expressly designed to improve the professionals' well-being and work.
The use of Monitor permits to work in complete comfort because the operating area can be observed in indirect vision. In fact, the dentist is not forced to maintain an incorrect posture such as being bent over the patient, but can operate sitting upright. In this way, he can reduce stress on the spinal column and consequentially decreasing the risk of professional ailments such as cervical problem, lumbar troubles and orthopaedic diseases.

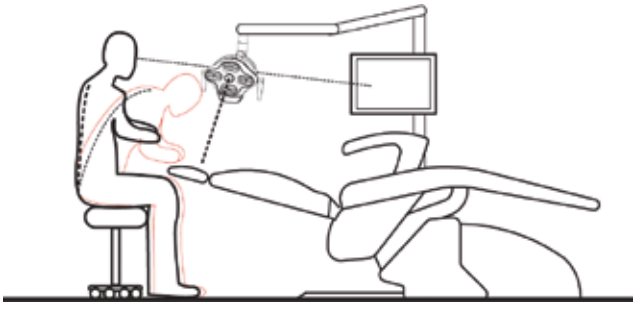

Photo : Complete Comfort

The lamp can be controlled both with the MyLight app and with the onboard keyboard to manage all the functions, according with the dentists' needs. Using the iPad it's possible to let an assistant set the parameters of the illumination with a Wi-Fi connection. In this way it's possible to avoid touching the lamp, increasing hygiene and cleaning.

Photo : My Light app

Colour temperature regulation: through a regulation system it's possible to adjust the colour temperature from 4.200° K to 6.000° K to improve the contrast on soft tissues. Recent studies demonstrate that dentists' concentration increase through the rise of colour temperature with the consequent reduction of their eyestrain.
With the onboard keyboard or through the iPad it's possible to set 3 different preset programs:
Anty-Polymerisation Mode: minimises blue emissions, reducing the compound curing speed;
Surgical Treatment: optimises the colour contrast on soft tissues, better distinguishing the shades of gums, blood and peridontium;
Colour Capture: creates a combination of cool and warm LEDs that maximises the colour rendering index facilitating the dentists' choices during tooth replacement operations.

Other important features included:
Light intensity: it's possible to adjust illuminance from 8.000 to 35.000 lux, as a function of the specific application in order to reduce eyestrain.

Scialytic Effects: the clearly geometry of reflectors, in combination with each LED source, allows to realize a luminous flux which is homogenous, clean and without shadows.

Low energy consumption and high lifetime: low values of current and voltage (<20W) are present to supply the light source and to minimize the heat production, make the fan cooler not necessary. LED lifetimes are high in comparison with halogen light. Minimum LED lifetimes is about 50.000 hours, against the traditional 3.000 - 5.000. Soft lines and smooth surfaces, the possibility of an easy handle's extraction and sterilization allow to maintain an optimal cleaning and hygiene.

Absence of UV rays: there is no emission of UV rays, dangerous for biological tissues.

Ergonomics and italian design: Iris View is realized with a production process that assure robustness, harness and durability in terms of detachment and stretching.

Available in different RAL colours, for applications on the unit, ceiling, wall and floor.

New: available with 3rd axis movement to rotate Iris View in any directions.

Then I would like to mention **our high-performing dental LED lamp, POLARIS.** Polaris established the new frontier of dental illumination LED technology: it shares many of the features of IRIS VIEW, namely the colour temperature regulation, the scialytic effect, low energy consumption and high lifetime, absence of UV rays, the ergonomic Italian design and movement flexibility. POLARIS is available with the 3rd axis movement to rotate it in any direction and with a mirror and anti polymerization kit.

Photo : Polaris dental LED light

The functional and efficient bleaching LED light system COREWHITE can easily be applied directly to POLARIS just by removing a handle. Without any external supports and the power cord directly connected to POLARIS, the operation area is free of any obstruction.

Through LED technology is possible to obtain the desired light intensity for different operation purposes. The maximum light power emitted is 2000 mW. Special filters are used to eliminate I.R. on the light pattern.

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MaCo Dental Care

MaCo Dental Care, established in 1993, has by now passed the milestone of two decades of presence in the international dental market and proved itself carrying on a winning idea by building a reputation founded on reliability and versatility.

This Italian company is the result of the will of its founder, Jose Felix Conte, to capitalize on his experience as an operator in dental industry giving birth to its own brand. So begins the story of MaCo and the company, after operating as a distributor of dental products in international markets, starts manufacturing dental implants. Into the industrial complex of Buccino, a town just 100km south of Naples, MaCo realized a manufacturing plant of 6000m2 provided with advanced machinery and equipment.

The quality control system is based on maximum efficiency and safety, and his compliance with standards set by ISO 13485 has been very early certified. Furthermore, all MaCo products are released with CE marking. Over the years MaCo has implemented its catalog and today it commercializes six different connections (while two others are currently being launched) providing to specialists a wide selection of products able to meet every specific need related to the individual clinical case.

The growth of this company, based in the industrial area of Buccino, is not only remarkable in its manufacturing side but its commercial evolution is perhaps even more impressive. MaCo implants, in fact, have achieved an increasingly stable presence in the market and their spread abroad witness how the choice of maintaining highest quality standards standing into an affordable price range, has been successful. In many of the countries where MaCo Dental Care has begun to spread its products through participation in events and international trade fairs, the company has raised growing consensus and, in some cases, it has further strengthened its position by opening head office subsidiaries. MaCo Dental Care Mexico has been the first example of this type and now is a well-known presence in Mexican implantology so much that the company decided to hold there its first two international conferences.

MaCo
DENTAL CARE

Acapulco and Veracruz have hosted two events characterized by an increasing number of participants and a large response in dental sector. This partnership was further strengthened, with the third edition of the seminar, which concluded a week of classes, meetings and surgical practice which was attended by twelve Mexican professionals who were able to confront with MaCo Dental Care Italian opinion leaders. Following the successful Mexican experience, MaCo Dental Care has similarly worked in other countries: in Colombia, for example, where MaCo realized in the city of Cali, the first training center for continuous education of doctors and operators, in Spain, where its presence is by now consolidated, or more recently, in Morocco, where the company has played a leading role in the First Intercontinental Congress of Dentistry and Implantology held in Marrakesh in January of this year.

The latest addition is MaCo Russia based in St. Petersburg. Alongside these experiences MaCo distributes its products in Europe, North Africa, Middle East and South America.

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