

Alveolar Ridge Preservation Using a Novel Titanium Seal.

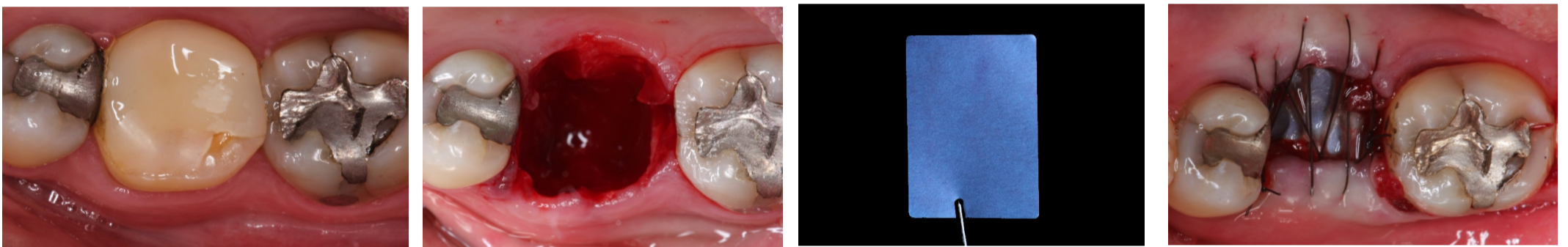
Cassio Kampits, Danilo Lazzari Ciotti, Guilherme da Gama Ramos

INTRODUCTION

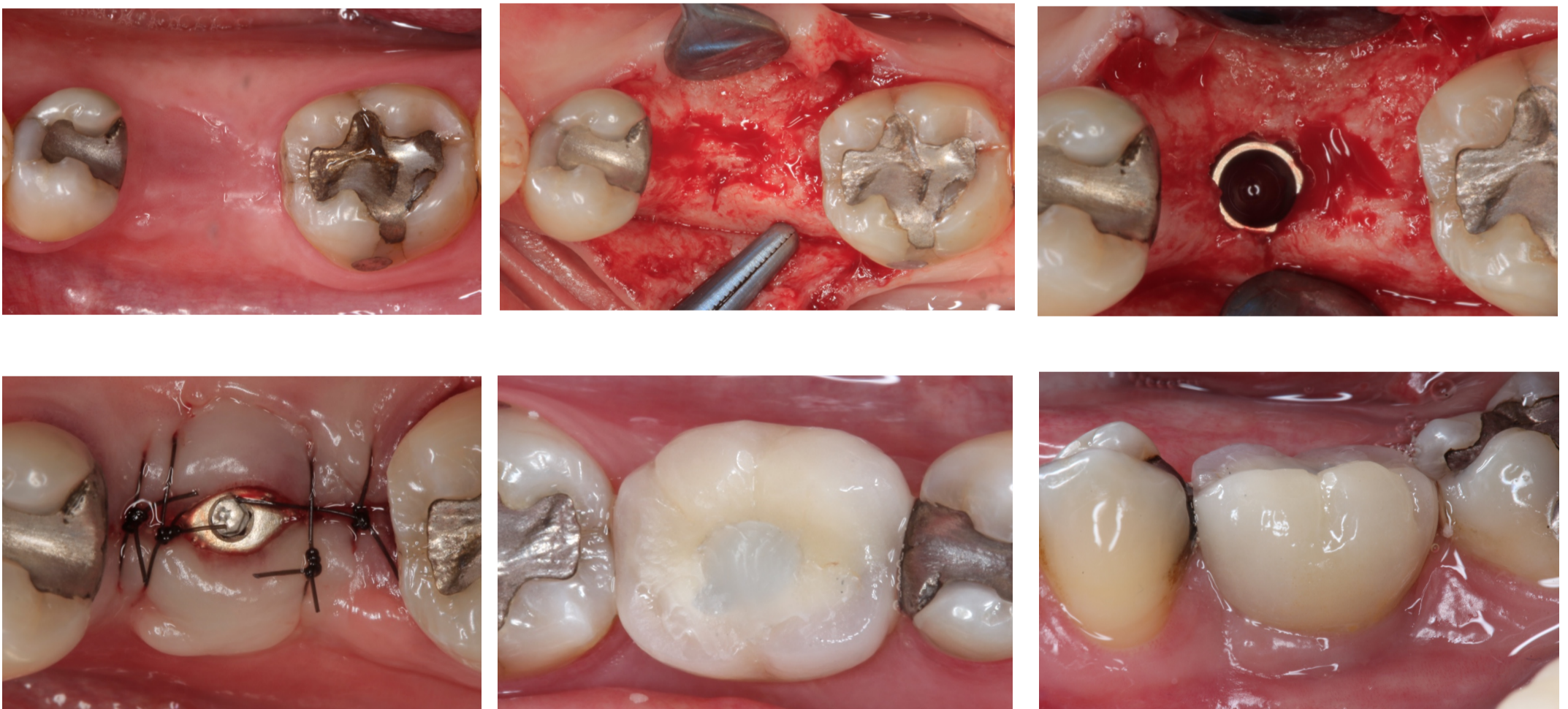
This case report highlights the use of a novel “in situ” titanium seal, non resorbable membrane composed of a thin layer of titanium, for alveolar ridge preservation.

CASE DESCRIPTION

A 50-year-old female patient was referred by her general dentist for extraction of the mandibular right left molar and rehabilitation of the site with a dental implant. The nonresorbable tooth was “atraumatically” extracted without raising a flap, and the socket was immediately covered with a titanium seal. The site was left uncovered without obtaining primary closure, in order to heal by secondary intention, only in 14 days the titanium was removed.



After 12 weeks, the architecture of the ridge was preserved, and clinical observation revealed excellent soft tissue healing without loss of attached gingiva and good bone quality. At reentry for placement of the implant, and primary implant stability was measured by final seating torque.



DISCUSSION

The membrane aims to exclude epithelial and connective cells, providing formation and stabilization of the clot allowing tissue formation bone.

CONCLUSION/CLINICAL SIGNIFICANCE

The implant was successfully loaded 12 weeks after placement. Clinical and radiological follow-up examination at one year revealed stable and successful results regarding biological, functional, and esthetic parameters.

REFERENCE

1 - Buser D, Chappuis V, Belser UC, Chen S. Implant placement post extraction in esthetic single tooth sites: when immediate, when early, when late? *Periodontol* 2000. 2017 Feb;73(1):84-102.

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Adult Treatment of Skeletal Class III with TADs

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Introduction: An adult female in her 40's came looking for treatment of her skeletal class III. She rejected orthognathic surgery

Case Description: This patient had all her teeth, presented a skeletal Class III with a -5° ANB and had a negative overjet and a negative overbite.

She had a constricted maxilla with complete cross-bite. Both canines and molars were in class III of 7 mm. Both arches presented crowding. The treatment began with 12 mm expansion in the maxilla with a dental mucous supported device. The lower third molars were removed and replaced with two 8 x 1.6 mm TADs. Anchored in TADs all lower lower dentition was distalized to class I molar and canine relation. After that all the other parameters like crowding, overjet and overbite were corrected. In the end of the treatment the smile became consonant.

Discussion: Having into account that the patient had rejected any kind of orthognathic surgery, the maxillary expansion was successful as well as the lower arch distalization. Maxillary expansion in adults usually is surgically done. Our option had some risks but we were able to manage them. The extraction of third molars was discussed with the patient, because the other option was the removal of the first lower premolars.

Conclusion / Clinical Significance: TADs are a valuable option in the distalization of the lower arch.

Poster Session 45 | 07.09.2018, 15:00 – 16:00 | Screen 3

Theme: Implantology

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Guided Bone Regeneration of Heterologous Graft Avoiding Autologous Grafting

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Introduction: The bone resorption of the maxilla in the anterior sector overcoming the logical measures for its implant rehabilitation, requires the realization of a guided bone regeneration.

Case Description: Anterior edentulous patient in the incisor area, presents very severe reabsorption in the palatal foramen sense and not in height, this means that the placement of implants for future rehabilitation is not allowed. For its treatment, a porcine heterologous osseous graft is made in block, fastened with fixation screws covered with platelet-rich plasma together with granular porcine bone tissue and covered by reabsorbable collagen membrane.

Discussion: The objective of the case is the increase in the width of the osseous tissue, reaching the desired measurements for the subsequent placement of implants, avoiding performing a second surgery that allows autologous grafting. In this way, it was possible to decrease surgical times and a better post operator of the patient.

Conclusion / Clinical Significance: Undoubtedly, autologous grafts have better reception in the area to be treated, but in this case, in

which heterologous graft was chosen, the operative times and postoperative comfort of the patient have been prioritized.

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Presence of Metallic Components in Peri-Implant Fluid and InflammationMiriam Grenón¹, Manuel Garcia², David Mario Fuks¹, Mauricio Kremer¹, Juan Carlos Ibañez³, María Constanza Ibañez³, María Agustina Juaneda³, Fabiana Oliva², Héctor Jorge Sánchez⁴

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Aim or Purpose: To measure the Peri-implant Crevicular Fluid (PCF) composition in patients with implants and different prosthetic materials of known chemical composition: zirconia, noble metals and chromium nickel. To establish a correlation among PCF compositions and the prosthesis.

Materials and Methods: Complete medical history was made. Patients gave consent to participate in the survey, and the project was approved by FO-UNC Bioethics Committee No. 22 I. Fourteen PCF samples were collected with microcapillaries. The concentration of metals in PCF was determined by spectrochemical analysis using the X-ray fluorescence technique in the synchrotron facility of the National Synchrotron Light Laboratory in Campinas, Brazil. Statistical calculations were performed with the Wilcoxon test for independent samples.

Results: PCF corresponding to prosthetic components made with nickel chromium showed concentrations of Ni, Cu and Zn in inflamed sites higher than in healthy ones ($p = 0.001$, 0.0007 , 0.0002 respectively). For the prostheses made with noble metals, similar conditions were found for Ni Cu and Zn ($p = 0.03$, 0.01 , 0.003 respectively) and statistically significant values were found for vanadium. Titanium was statistically significant ($p = 0.03$) for the zirconia prostheses.

Conclusion: Apparently, no similar studies have been reported in the literature. Although these findings showed the presence of different trace elements in the different prosthetic materials, more exhaustive analysis is necessary to obtain conclusions with a clinical projection.

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Alveolar Ridge Preservation Using a Novel Titanium SealCassio Kampits¹, Danilo Lazzari Ciotti², Guilherme Ramos da Gama²

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Introduction: This case report highlights the use of a novel in situ titanium seal, non-resorbable membrane composed of a thin layer of titanium, for alveolar ridge preservation.

Case Description: A 50-year-old female patient was referred by her general dentist for extraction of the mandibular right left molar and rehabilitation of the site with a dental implant. The

nonrestorable tooth was “atraumatically” extracted without raising a flap, and the socket was immediately covered with a titanium seal. The site was left uncovered without obtaining primary closure, in order to heal by secondary intention, only in 14 days the titanium was removed. After 12 weeks, the architecture of the ridge was preserved, and clinical observation revealed excellent soft tissue healing without loss of attached gingiva and good bone quality. At reentry for placement of the implant, and primary implant stability was measured by final seating torque.

Discussion: The membrane aims to exclude epithelial and connective cells, providing formation and stabilization of the clot allowing tissue formation bone

Conclusion / Clinical Significance: The implant was successfully loaded 12 weeks after placement. Clinical and radiological follow-up examination at 1 year revealed stable and successful results regarding biological, functional, and esthetic parameters.

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Infection Internal of The Implants? New Concept of Disease: Endoimplantiasis

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Aim or Purpose: To verify the presence of infection or inflammation internal between the implant platform and the prosthetic connection, in the microgap region.

Materials and Methods: Were performed periapical radiography in ten clinical cases with implants. Hematoxylin and Eosin and Immunohistochemistry stain was used to investigate the inflammatory infiltrates in the microgap region. Reactions using anti CD 20, anti CD3, anti CD 45 antigen. The suggested nomenclature was based on the Standardized Nomenclature of Parasitic Diseases (SNOPAD).

Results: Positive labeling in all samples for CD3, CD20 and CD45 of chronic inflammatory infiltrate shows the mixed nature of inflammatory cells. It was found that the inflammatory cells found were predominantly T-lymphocytes, as evidenced by their CD3

positivity and they were found to be distributed mainly on the lamina propria that underlies the implant cover. All samples were positive for the presence of microorganisms.

Conclusions: The presence of an inflammatory response leads one to believe that we are facing an infection and not a simple contamination. Clinically the presence of a chronic inflammation found around the implants may justify bone loss around the implant, early loss of implant fistulas and microfistulas. We recommend the terms endoimplantiasis or endoimplantosis as nomenclature for this new hypothetical disease.

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Evaluation The Five Cement Reverse Torque in Dental Implants

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Aim or Purpose: Verify the reversibility of screwing of a prosthesis on a screwed / cemented implant, for this we verified in vitro reverse torque for the removal of the cemented prosthetic screw as 5 cements for internal implant use.

Material and Methods: We used 30 implants (Biomet / PYBranemark) fixed in the gypsum models and 30 metaloceramic prostheses, which were divided in 6 groups, all the prosthetic screws (Biomet / PYBranemark) were submitted to the initial torque of 32 Newtons of force. In 7 days, the reverse torque was measured. Group (0) no cement, Group (1) Cement based on temporary propolis, Group (2) Cement based on propolis definitive, Group (3) Cement based on zinc oxide eugenol and temporary chlorhexidine, Group (4) Cement the base oxide of eugenol zinc and definitive chlorhexidine Group (5) Cement based on definitive eugenol zinc oxide.

Results: There was no statistical difference between groups. In groups 2, 4 and 5 there were higher scores of reverse torque in relation to the groups 0,1,3.

Conclusions: The cements tested did not interfere in the reversibility of the prosthetic screw tightening at the tested intervals.