



### **Three-year clinical follow-up of a single tooth replacement with plateau design short implant**

Rapp GE, Couto LM, Neri MA, Lisboa M, Speratti D

**Aim:** Osseointegrated dental implants are an effective alternative in the rehabilitation of partial or total edentulous patients. The aim of this clinical case is to present the replacement of a single tooth with limited prosthetic space using a plateau design short implant. **Material and Methods:** A 65 years-old female searched for a single tooth replacement at the 25 region (FDI notation) at the Federal University of Bahia-Brazil Dental School. She remained with an edentulous space during approximately one year. Due to the limited prosthetic space a 4X8mm (HA coated) locking taper (LT), plateau design (PD) and sloping shoulder (SS) implant has been selected (Bicon Dental Implants, Boston, USA). The implant has been placed 2.0 mm below the bone crest during surgical stage, following manufacturer's protocol. An Integrated Abutment Crown™ was taped in six months after implant placement. The occlusion has been checked and adjusted. **Results:** A three-year follow-up periapical radiographic image revealed no marginal bone loss. Clinically, the presences of aesthetically acceptable tooth-implant papillae and soft tissue contour were evident. The patient agreed in participating in the clinical case by means of a written consent. **Conclusion:** Properties as the bacterial seal of the LT and particularly, the lamellar bone formation at a supra-implant level as a consequence of the PD and the SS of the neck of the implant might have contributed to the bone quality at the supra-implant area. Thus, allowing sufficient space for papillae formation, in this clinical case.

### **Serum IgG levels to *A. actinomycetemcomitans* in Brazilian generalized aggressive periodontitis patients**

Saraiva L, Rebeis ES, Mantovani NA, Holzhausen M, Mayer MP

**Aim:** Studies have examined the relationship between the distribution of *A. actinomycetemcomitans* serotypes and periodontal condition; the prevalence of the *A. actinomycetemcomitans* serotypes may differ according to the geographical location and type of disease, and serotype c was shown to be highly prevalent in Brazil. The ability to induce disease and a strong immune response may also differ among the serotypes. This study investigated the sera IgG levels to *A. actinomycetemcomitans* in patients with generalized aggressive periodontitis. **Material and Methods:** Twenty six subjects presenting aggressive periodontitis, aged 19 to 35 years and three healthy negative controls were evaluated for serum levels of antibodies to *A. actinomycetemcomitans* serotypes a, b and c by enzyme-linked immunosorbent assay (ELISA). Sera were considered responsive to each serotype when the OD corrected values were  $> \text{mean OD healthy} + 7\text{sd}$ . **Results:** Data revealed that IgG levels were positive for *A. actinomycetemcomitans* in 6 of 12 afro descendant patients. Five of these positive patients had high antibodies titers to serotype b, including 3 responsive also to serotypes a and/or c. However, an immune response to *A. actinomycetemcomitans* was observed in 12 of 14 Caucasian subjects. Ten of these subjects were immune responsive to serotype b, including 4 sera responding also to serotypes a and/or c. Serum IgG antibody levels were significantly different among different serotypes of *A. actinomycetemcomitans* of patients with GAP ( $p < 0.01$ ). **Conclusion:** Response to *A. actinomycetemcomitans* serotype b was shown to be strongly associated with generalized aggressive periodontitis, especially among Caucasian aggressive periodontitis patients.

**MTZ alone or with AMX in the treatment of chronic periodontitis: a 1-year double-blinded, placebo-controlled, RCT. Part II: Microbiological results**

Faveri M, Feres M, Figueiredo L, Mendes J, Silva M, Soares G, Socransky S, Teles R

**Aim:** Previous studies have suggested that the adjunctive use of metronidazole (MTZ) or MTZ+amoxicillin (AMX) is beneficial in the periodontal treatment. However, the effects of these two therapies in changing the subgingival microbial profile have only been directly compared in a few short-term studies. Therefore, the aim of this randomized, double masked, placebo-controlled clinical trial was to evaluate the microbiological effects of the adjunctive use of MTZ or MTZ+AMX in the treatment of chronic periodontitis (ChP). **Material and Methods:** 118 subjects were randomly assigned to receive scaling and root planing (SRP)-only or combined with MTZ (400 mg/TID) or MTZ+AMX (500 mg/TID) for 14 days. Subjects received clinical and microbiological monitoring at baseline, 3, 6 and 12 months post-therapy. Nine subgingival plaque samples per subject were analyzed for their content of 40 bacterial species by checkerboard DNA-DNA hybridization. **Results:** No statistically significant differences on the microbial profiles were observed between the three groups at baseline. However, at 12 months post-treatment the red complex pathogens were statistically significantly lower in counts and/or in proportions in the two test groups, in comparison with the control group. In addition, the systemic antibiotics, especially MTZ+AMX, elicited a more striking increase in the proportions of the host-compatible microbial species ( $p < 0.05$ ). **Conclusion:** The adjunctive use of MTZ or MTZ+AMX offers microbiological benefits, over those obtained with SRP alone, in the treatment of subjects with generalized ChP. The added benefits of MTZ+AMX in changing the subgingival microbial profile were more evident.

**Genetic linkage in Brazilian families with GAgP**

Brett P, Mc Quillin A, Pineda-Trujillo N, Rapp G, Tonetti M

**Aim:** The aim of this study was to test the linkage of candidate genes to periodontitis in three large 3-generation families. **Material and Methods:** A 6 site/tooth full-mouth probing was performed by a calibrated examiner in 58 pedigree members. The GAgP was found in two families (Fam1, Fam3) and the generalized form of chronic periodontitis in one family (Fam2)(AAP, 1999). Edentulous members were phenotyped according to the reported cause of tooth loss. Smoking was not present in the affected members. All the subjects were genotyped for markers D1S1595, Fcγ3A, Fcγ3B65, Fcγ3B36, D1S1679, D7S1802, IL6-1750, IL6-1363, IL6-572, IL6-174, D7S1802, IL13954 and VDR-312. MLINK and Simwalk2 2.91 were used for the multipoint parametric linkage (MPLA) and the non parametric linkage analysis (NPLA), respectively. **Results:** LOD scores above 1 were found for marker D1S1595, in the MPLA, in overall and in Fam3. Highly significant values were found for D1S1679 ( $p = 0.0084$ ) and D1S1595 ( $p = 0.0077$ ) in the overall NPLA. Fam3 showed significant linkage ( $p < 0.05$ ) for D1S1595 and D1S1679 in all five studied NPLA statistics. **Conclusion:** GAgP seem to be linked to Chromosome 1 in the studied families. Further studies need to be conducted in other family sets in order to confirm these findings.