



Poster



31st International Webinar on DENTISTRY

January 06, 2022 | Webinar

Relationship between haplotypes of the *gtf-B* gene of *Streptococcus mutans* with caries experience

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Objective: To determine if the variability of the *gtf-B* gene of *Streptococcus mutans* strains correlates with the dmft and DMFT indexes in children.

Methods: The study population consisted of children (n=44) of both sexes between 6-8 years of age. The dental clinical examination was carried out following a routine tact-visual procedure, being the dental elements registered as healthy, decayed, missing due to caries and filled teeth in primary and permanent dentition. From these data the dmft and DMFT indexes were calculated according to the WHO criteria. Samples of stimulated saliva were cultivated in Mitis Salivarius Agar for the growth of *S. mutans*. Bacterial colonies were recovered in heart brain broth and incubated for 48hs. DNA extraction was performed according to the Bollet method. The *gtf-B* virulence gene was amplified by PCR and sequenced. The *gtf-B* haplotypes were identified with the DNAsp program, and their genealogical relationships were established using the Median joining method implemented by the PopArt program. To correlate the genetic variants and the caries experience, the Spearman analysis was applied using the PAST program. This work is part of a research project approved by the Ethics Committee of the Faculty of Dentistry (UNC) and has no conflict of interest.

Results: Mean values were obtained for dmft: 4.02 ± 3.4 ; DMFT: 0.75 ± 1.43 and dmft + DMFT: 4.77 ± 4.2 . Twenty-two haplotypes of the *gtf-B* gene were identified, being haplotype 2 the most common (shared by strains of 12 children). The haplotype network revealed little genetic differentiation and all formed part of a clonal complex. The correlation between the haplotypes of the *gtf-B* virulence gene with dmft ($r = 0.242$; $p = 0.11$), with DMFT ($r = -0.0094$; $p = 0.95$) and with dmft+DMFT ($r = 0.198$; $p = 0.197$) were statistically non-significant.

Conclusion: We found no evidence of a relationship between the variants of the *gtf-B* gene of *S. mutans* strains isolated from the children of the study and their caries experience.

Biography

Fabiana Pia Marina Carletto Korber Doctor in Odontology (DMD), title issued by the Faculty of Dentistry of the National University of Córdoba-Argentina. Adjunct Professor (PhD), Pediatric Dentistry. Faculty of Dentistry of the National University of Córdoba-Argentina. She is one of the Member of the Institutional Ethics Committee and the Departmental Council of the Academic Department of Preventive and Social Dentistry. Former president of the Pediatric Dentistry Society of the Córdoba-Argentina. Has done many scientific publications and attended national and international conferences.

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Micro- computed tomography for fit evaluation of zirconia 3-unit FDPs

Elie E DAOU

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Null hypothesis: No difference between materials tested

Material and Methods:

Ceramill Sintron (AmannGirrbach AG)	Ceramill Zi (AmannGirrbach AG)
n=12 Lot: 1404009 (cs)	n=12 Lot: 140900 (CZ)

- Each specimen: Labeled and digitized using scanner (Ceramill map 400, AG)
- Micro – CT scanning / N=24 abutments

Statistical Analysis:

- Levene's test and t-test: Gap values between materials and abutments
- Multiple pairwise comparisons: ANOVA and Bonferroni correction
- $\alpha=.05$ for all tests.

N=24	Materials	Mean \pm SD	p
Total Gap	CS	889 \pm 144	.085
	CZ	816 \pm 146	.085

Total Gap Measurements (P < .05)

Discussion and Conclusions:

- Small Artifacts precluded automated measuring or 3D evaluation
- Overall mean gap values, no significant difference CS /CZ (P=.085)
- Pairwise comparison /points - significant difference within each material (P<.05)
- Marginal gap: Clinically acceptable

Biography

Elie E DAOU was graduated as dental surgeon in 1994, from Saint Joseph University in Beirut. Then he got a master's in sciences in 1999, a DES in prosthodontics in 2002 from the same university, and a UD in "Fundamentals in Medical Research" from F-MRI –LU in 2015. He got a DSc O don't in 2018 from the Lebanese University. Besides his private practice, he was in department of removable prosthodontics until 2005. He is a Professor (Ass.) in the department of prosthodontics, at the Lebanese University (LU) in Beirut. Dr. Daou lectured in international conferences (IADR, CED-IADR), and published several papers in peer-reviewed journals.

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Accepted Abstracts



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The predictability of three implants to support a fixed prosthesis in the edentulous mandible

Murtaza Hirani

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Introduction: The use of four or more implants to support a fixed prosthesis in the edentulous mandible is well documented with high levels of clinical outcomes recorded. Despite this, the use of a three-implant supported fixed prosthesis offers the potential to deliver a more cost-effective method of oral rehabilitation in the lower arch; an important consideration given that edentulism is most prevalent in low-income subpopulations. The purpose of this study aimed to evaluate the implant and prosthetic survival rate, changes in marginal bone level, and patient satisfaction associated with a three-implant supported fixed prosthesis for rehabilitation of the edentulous mandible over a follow up period of at least one year.

Methods: A comprehensive literature search was performed to evaluate studies that met the selection criteria. The information extracted included the study design and population, participant demographics, observation period, loading protocol and the number of implants placed together with the required outcome measures. Mean values and standard deviations (SD) were calculated using SPSS® (IBM Corporation, New York, USA), and the level of statistical significance across all comparative studies described was set at $P < 0.05$.

Results: The eligible studies included a total of 1968 implants that were placed in 652 patients. The subjects ranged in age from 33-89 years with a mean of 63.2 years. The mean cumulative implant and prosthetic survival rates were 95.5% and 96.2% respectively over a mean follow-up period of 3.25 years. The mean marginal bone loss recorded was 1.04 mm and high patient satisfaction rates were reported across the studies.

Conclusion: Current evidence suggests that a three implant-supported fixed prosthesis for the edentulous mandible is a successful treatment strategy presenting high implant and prosthetic survival rates over the short-to-medium term. Further well-designed controlled clinical trials are required to evaluate longer-term outcomes, with supplemental data correlating implant dimensions and prosthetic design.

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A case series of treatment of oral mucosal lesions using diode lasers

Akshay Katara

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Background: Einstein's photoelectric amplification theory provided the template for the development of lasers. With recent technological advancements, the increasing use of lasers in dentistry has had a meaningful impact on the diagnosis and management of oral mucosal lesions. This case series highlights lasers' impact. Case Reports: Five patients with diagnoses of arteriovenous malformation, homogeneous leukoplakia, mucocele, traumatic fibroma, and erosive lichen planus were treated with a diode laser (1,200 J/s; wavelength of 940 nm; 1.5 W; pulse mode). The patients were followed up to evaluate lesion healing and complete healing of the lesion was rapidly achieved with minimal discomfort. Conclusion: Soft-tissue lasers are trending in the management of various oral mucosal lesions due to their advantages of providing higher precision, a clean surgical field with minimal blood loss, accelerated wound healing, and fewer postoperative complications.



Figure 1: (a) A solitary bluish red sessile growth in the right buccal mucosa (Case 1). (b) The surgical site after laser excision (Case 1). (c) Completely healed surgical site

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A retrospective three dimensional assessment of the prevalence of apical periodontitis and quality of root canal treatment in Mid West Indian population

Asiya Mujawar

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Background:

Introduction: This study aims to report a retrospective observation of the prevalence of apical periodontitis (AP) and quality of root canal treatment in cone beam computed tomography (CBCT) scans among the Mid West Indian population.

Material and Methods: A total of 1229 CBCT scans were obtained across different CBCT centers in western India. After the exclusion criteria, those that were included were divided into broadly two groups – those that were filled and those that were unfilled. Various parameters were considered such as AP, length of the root canal filled, and coronal filling.

Results: There were a significantly higher percentage of non-filled canals. Poor filling quality, inadequate coronal restoration, and missed extra canal were significantly associated with AP. Both males and females showed higher presence of AP in the non-filled teeth than filled ones (X² Chi square value M = 612.156, P < 0.00001, X² F = 1032.9092, P < 0.00001).

Conclusion: The inadequacy of the filling of the root length was a contributory factor to the higher prevalence of AP among the study population. The density of the filling and the quality of the coronal filling also significantly affected the successful outcome of the root canal treatment.

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Efficacy of rebamipide and vitamin b-complex in the treatment of patients with recurrent aphthous ulcer - A comparative study

Oshin Verma

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Background:

Statement of the problem: Recurrent aphthous stomatitis is by far the most common ulcerative lesion encountered by the practicing dentist and various drugs have been tried out in the management of recurrent aphthous stomatitis due to the obscure nature of its etiology. Most of the currently available treatment modalities provide only symptomatic relief, but they fail to reduce the recurrence rate and hence, are not suitable as a definitive treatment. However, rebamipide, a new muco-protective agent which enhances preservation of existing epithelial cells and replacement of lost tissue through a multifactorial mode of action, resulting in decreased number, size and recurrence rate of aphthous ulcers.

Methodology & Theoretical Orientation: 60 subjects presenting with an aphthous ulcer and a history of recurrent aphthous ulcers, without any chronic systemic diseases were included in this study. These subjects were equally divided into 2 groups, of which, Group 1 was prescribed Becosules capsule (twice a day for 2 weeks) and Group 2 was prescribed Rebagen 100 mg (thrice a day for 2 weeks). Subjects were monitored at day one and at the end of week two, first month and third month, for changes in number, size, pain and recurrence of aphthous ulcerations.

Findings: Significant improvement was noted in Group 2 compared to Group 1 in number, size and recurrence rates of recurrent aphthous ulcers.

Conclusion and Significance: Administration of rebamipide is not cumbersome, and it does not cause any discomfort. Furthermore, there are no specific adverse drug reactions. Rebamipide is therefore recommended as a long-term treatment for recurrent oral aphthous ulcers.

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The power of digital smile design and dental photography

Peter Magdi

Alexandria University, Egypt

Statement of the problem: The patient complains of his bad smile but he isn't sure after doing the treatment his smile will be ok or not, so we decided to take some pictures to design his smile and print it as a mock-up before starting to work. First, we took some pictures and impressions with putty and light impression material then we started to use exocad to design the smile and our patient was satisfied with the mock-up.

We started the preparation over 2 visits then took an impression with a putty and light impression. Our design from upper left 4 to upper right 4 and is split into 5 pieces of single crowns for upper right 1, 2, 3, 4 and one bridge from upper left 1 to upper left 4 cause we have missing upper left canine and weakness of the upper left 2 so we decided to do it as a bridge. At the end, we will speak about some basics of dental photography and the difference between Mobile photography and DSLR camera photography.