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Enterococcus faecalis and Porphyromonas gingivalis with the tested methodologies. Accurate disinfection at sites where RECs are applied is recommended.

ANTIMICROBIAL PHOTODYNAMIC THERAPY FOR ROOT CONDITIONING IN ROOT COVERAGE PROCEDURE

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Aim: Chemical root conditioning of root surface aims to promoting antimicrobial action, collagen fiber exposure in root cement or dentin and new attachment of fibers. The antimicrobial photodynamic therapy (aPDT) employs one light source (led or laser) with a photosensitizer with antimicrobial effect and - recently discovered - demineralization effect on root surface. The aim of this study is present a case report illustrating the efficacy of root conditioning method by aPDT on root coverage procedure with subepithelial connective tissue graft.

Method: The patient presented multiple gingival recession defects on teeth 23, 24 and 25. After scaling and root planing, aPDT was performed (Toluidine Blue O - 10mg/ml, acid pH, red laser 658nm, 0.1W, 1061 J/cm², 358 J/cm² per point, 35.38W/cm², 1J per point-10s, 3J in total-30s). After, a subepithelial connective tissue graft (1.0 mm of thickness harvesting by double scalpel technique) was sutured and covered by a coronal advanced flap. After six months of follow-up, there was 2.25 mm of recession reduction, 1.10mm of keratinized tissue increase and 2.25mm of clinical attachment gain.

Results:

Conclusion: The success of this therapy is evidenced by stability of clinical results, reduction in probing depth and clinical attachment gain. In conclusion, aPDT for root conditioning is an additional treatment that contributes to the success in root coverage treatment.

ANTIPROLIFERATIVE ACTIVITY OF CARVACROL ON IMMORTALIZED HUMAN KERATINOCYTES

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Aim: To evaluate the antiproliferative effect of carvacrol in cell culture in vitro of untransformed immortalized keratinocytes (HaCat).

Method: The culture was performed on 96-well treated plates with RPMI / SFB medium at a cell concentration of 6.5x10⁴ cell / well, and after the adhesion period the wells were treated with the serial concentrations of carvacrol, starting at 2 mg / mL. After incubation with the compound for 24 h, the cells were fixed, stained with sulforhodamine B and their absorbance was recorded on a microplate reader.

Results: The cellular viability of HaCat was shown to be dose-dependent at the concentrations tested, with a C_{it} potential at concentrations of 2 mg / mL up to 0,0625 mg / mL and a cytostatic profile at concentrations below 0.03123 mg / mL to 0, 00098 mg / mL with IC 50 for the lowest concentration of 0.00098 mg / mL.

Conclusion: The carvacrol compound is active against HaCat cells. The cellular viability of HaCat is dose dependent on the concentrations tested.

ANXIETY AMONG UNDERGRADUATE STUDENTS IN DENTISTRY

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Aim: To investigate the anxiety levels among students of the undergraduate course in Dentistry of FOP-Unicamp, verifying their association with the year of the course and socioeconomic and demographic variables.

Method: The study was attended by 231 undergraduate students in Dentistry at the Piracicaba Dental School (FOP-Unicamp), during the 5 years of the course, in 2017. The students were invited to participate in the classroom. Anxiety tools were applied, as well as questions related to the interviewee's age, age and schooling of the father and mother, and monthly income. A descriptive analysis of the data was carried out using frequency and percentage tables. Gross analyzes were performed to test the association between the dependent variable (anxiety) and the independent variables. The statistical tests were performed by the program Bioestat 5.0. and a significance level of 5% was considered.

Results: 81.25% of the students interviewed in the fourth year of graduation had moderate or severe levels of trait anxiety and 81.58% of those belonging to the second year presented levels at the same intensity of anxiety state. There was no association between anxiety, either trait or condition and the analyzed variables.

Conclusion: The majority of the sample of undergraduate students had altered levels of trait-state anxiety and this variable had no association with the graduation years.

APICAL ANGLE AS A TOOL TO MEASURE THE ROOT DEVELOPMENT OF IMMATURE TEETH TREATED WITH APEXIFICATION OR REVITALIZATION

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Aim: The aim of this study was to compare the root development, as a convergence of root canal walls, of traumatized immature permanent teeth submitted to apexification or revitalization by a tool, named an apical angle

Method: Periapical radiographs were collected from 37 patients with 44 teeth (22 apexification

and 22 revitalization). Three examiners marked, by consensus, the most apical point of the root on the mesial and distal side before and after the procedures. The software Image J was used. The apical angle was measured from two lines connecting the most apical points and another point 5mm toward the crown on the mesial and distal sides. If the ratio between these distances was greater than 1, the angle tool was directed to the crown, and the value of the apical angle was measured at the time the lines passed at the four demarcated points. The apical angle was considered divergent. If the ratio between these distances was less than 1, the angle tool was directed to the root and measured the value of the apical angle at the moment the lines passed in the four points marked. The apical angle was considered convergent. The changes in apical angle were expressed as the mean \pm standard deviation. The parametric t-test was used ($p < 0.05$).

Results: The mean of convergence in the apexification group was 7.6° (± 6.9) and in the revitalization group was 8° (± 7.6). There was no statistical difference between the groups ($p = 0.9142$). Both procedures provided the convergence of root canal walls.

Conclusion: Apical angle is a promising tool for the measurement of root development of traumatized immature permanent teeth, regardless of the procedure performed.

APICECTOMY AS AN ALTERNATIVE TO ORTHOGRADE RETREATMENT IN TEETHCARRYING POST, CORE AND CROWN. A CASE REPORT

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Aim: A 50-year-old female patient was referred to the dental office as a result of acute pain in the left central and lateral maxillary incisors.

Method: Clinical examination revealed gingival swelling located at the apex of the tooth #22. The patient explained that no retreatment was done due to the unsuccessful attempt of removing the intraradicular post and that the dentist changed the old crowns for new ones. The new crowns were well-adapted, with satisfactory aesthetic appearance, and without periodontal disease. Radiographic examination revealed apical radiolucency of teeth 21 and 22 diagnosing persistent chronic apical periodontitis. After anesthesia, a horizontal incision was made at the mucogingival junction extending from tooth 21 to 23. Complete flap was raised and osteotomy with diamond bur and constant irrigation was performed. After complete curettage of the surgical cavity, apicoectomy of 4 mm of teeth 22 and 2 mm in 21 was performed. Also, 5 mm in depth of retro-cavity was done. 5mL of 2% chlorhexidine was used to irrigate the canals and dried with sterile paper points. Mineral Trioxide Aggregate was used for cavities retrofilling. After radiographic verification of filling, particulate bone graft and resorbable membrane were placed and simple suture was performed. Anti-inflammatory drugs and antibiotics were prescribed and after 7 days the suture was removed. After 6 months, radiographic control showed signs of repair.

Results:

Conclusion: In cases where emotional factors of the patient, satisfactory crown adaptation and aesthetics, and also, difficulty in performing orthograde retreatment, periapical surgery should be considered.

ARGININE ADDITION EFFECT IN ADHESION AND ANTIMICROBIAL ACTIVITY OF RESINOUS CEMENTS FOR BRACKETS FIXATION

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Aim: The aim of this study was to evaluate the shear bond strength (SBS) and antimicrobial potential of two commercial orthodontic light cure adhesives with arginine addition.

Method: For this, 40 bovine lower incisors were separated into 4 groups: Orthocem, Orthocem + arginine (2.5% wt), Transbond XT and Transbond XT + arginine (2.5% wt). The brackets were fixed on flat enamel surface and after 24 hours the SBS was evaluated using a universal test machine (Instron). For the colony forming unit (CFU) test, six adhesive discs of each group were submitted to biofilm formation of *S. mutans*, for 7 days. The microbiological experiment was done by means of serial dilution and in triplicate.

Results: The data of each test were analyzed statistically by ANOVA (two-way), followed by Tukey test ($\alpha = 0.05$). For the SBS test, the Transbond XT light cure adhesive presented statistically higher values than Orthocem, regardless of the addition of arginine. There was a significant reduction in the growth of *S. mutans* for the Orthocem light cure adhesive + arginine (2.5% wt) group.

Conclusion: It can be concluded that the addition of arginine to the orthodontic light cure adhesives is a promising strategy to reduce bacterial growth, without compromising the adhesive properties of the material.

ASSESSMENT OF THE PATIENTS' ANXIETY IN THE ACQUISITION OF THE RADIOGRAPHIC EXAMS AND THE ANXIETY PERCEPTION BY DENTISTS

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Aim: This study evaluated the anxiety of patients undergoing dental radiographic exams, the influence of anxiety on image quality and to verify anxiety perception by dentists.

Method: Forty-seven patients and fifty dentists participated in the study. Patient anxiety was assessed by the alpha amylase activity, obtained from the patient's saliva before and after radiographic exams. Influence of anxiety on image quality was verified by presence of motion artifacts in images. Dentists answered a semi-structured questionnaire about patients' anxiety perception, and the answers were analyzed by the qualitative-quantitative method of collective