



7th International Conference on
Prosthodontics & Orthodontics

March 10th, 2022 | Webinar

SCIENTIFIC TRACKS
& ABSTRACTS

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Impact of gum muscles training and effect of periodontal thickness in oral cavity

Previous research on periodontal structure and function has shown a significant relationship between periodontal tissue and teeth. This study assessed dentist's beliefs about the relative efficacy of the health of periodontal tissue. A total of 505 patients in general practice were asked to respond to a list of 25 obligatory nourishment for a child while going to have the first teeth, for its effectiveness in dealing with patient's periodontal health especially include chewing hard food. They were also asked to select the three most effective nutrition for periodontal tissue. The indices of patient perceived importance of the periodontal health were derived and each compared with actual effectiveness as determined from a sample of 250 patients.

Although the majority of patient's rated 18 of 25 nutrition as being very effective, there was no significant association between patient perceived nourishment effectiveness and actual effectiveness. The implications for patient training are discussed.

This study supported by only me and my supervisor Alla grigorivna demitrova.

Biography

NIMA SABZCHAMANARA has completed his dental study from National Medical University Kiev Ukraine. He is therapeutic Dentist, Microscopic Endodontics. Member Association Dentists in Ukraine, Member Association of Endodontists in Ukraine, Editorial Board Member of journal OMICS International. Scientific Committee Advisor Hilaris Conferences.



Nima sabzchamanara

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The effect of extending endocrown preparation onto the outer surface of the buccal wall on marginal and internal adaptation of the final restoration

Statement of the Problem: Endocrowns are used in the restoration of endodontically treated teeth. Due to the importance of marginal and internal adaptations, this study assessed the effect of extending preparation over the outer surface of the buccal wall on the marginal and internal adaptation of endocrown restorations. Methodology & Theoretical Orientation: In an experimental trial, 24 permanent maxillary first molars with similar crown dimensions were selected and stored in 0.5% chloramine-T after disinfection. The teeth were cut perpendicular to the long axis of 3mm above CEJ followed by root canals preparation and irrigation. The canals were obturated by gutta-percha and sealer. The teeth were fixed in a dental surveyor and the roots were mounted in autopolymerizing acrylic resin. Gutta-percha was removed from canals. Canal entries were filled by composite and pulp chamber floors were flattened. Teeth were prepared by standard method using water spray as well as a dental surveyor and a diamond bur. They were randomly assigned into 2 groups: in the experimental group, preparation was extended in buccal walls from mesiobuccal to distobuccal angle and from 3mm above CEJ to CEJ margin using a round end bur. In control group, butt-joint preparation was done. Endocrowns were manufactured by heat press method. Internal and marginal adaptations were measured by replica method. To achieve vertical perpendicular view, 2-mm cuts parallel to the walls were obtained. Light-body layer suggesting discrepancy between teeth and endocrown was assessed by 35x magnification by a digital stereo-microscope. The marginal and internal gaps of 2 groups were analyzed by Student t-test. Findings: Mean±standard error of internal gaps were 412.24±31.49 and 770.04±48.37 µm in butt margin and preparation extension groups respectively. The values were 324.05±17.20 and 273.71±15.54 µm for marginal gaps respectively. Mean internal gaps of preparation extension specimens were significantly higher than butt margin group ($p<0.001$) while mean marginal gaps were lower for extension group than butt margin significantly ($p=0.03$). Conclusion & Significance: Due to increased internal gap in buccal extension group, this type of preparation may not be the best choice in teeth with less aesthetic value. However, in case of premolars where aesthetic aims are of great importance, further studies need to be carried out.

Biography

Zahra Abbasiparashkouh is passionate about investigating biomechanical mechanisms and novel dental prosthetic options, her ultimate goal being the development of a reliable guideline for treatment planning. Her evaluation of acceptability of biomechanical characteristics of novel dental materials and restoration designs leads to a more predictable and valid selection of the final restoration design.



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The mechanism of pomegranate extract (*Punica granatum L*) in killing oral cavity cancer cells through VEGF expression and apoptosis

Cancer is one of the leading causes of death throughout the world. In 2013, it was the number seven cause of death In Indonesia, by reaching 1.4% or an estimated 347,792 people. Among them, squamous cell carcinoma is the most common cancer in the oral cavity, patient survival is less than 50 %. Despite rapid advances in the field of surgical therapy, radiation, and chemotherapy, the treatment of cancer has not been completed. Meanwhile, new cases continue to emerge every year. The development and growth of cancer cells is caused by several factors, including; Apoptotic barriers and angiogenesis activity. The formation of angiogenesis is induced by growth factors, one of which is dominated by VEGF. With these backgrounds, authors want to inhibit cancer cell growth by increasing apoptosis of cancer cells and inhibiting the formation of angiogenesis. Pomegranate (*punica granatum L*, PGL) is one of the plants that has an active ingredient of ellagic acid (EA), EA in some studies has anti-cancer activity in vitro, but EA is difficult to absorb. Bioavailability of pomegranate / PGL fruit extract is better than EA because it is easily absorbed and contains polyphenol. The aim of this study was to determine the mechanism of action of whole pomegranate extract (PGL) in killing oral cavity cancer cells through VEGF expression and apoptosis. The research method used was experimental laboratories, 24 mice (Balb / c), males, aged 5 months were divided randomly into 3 groups: KO (not suffering from cancer and not given PGL), K1 (had cancer and was

not given PGL, P1 (have cancer and is given PGL). Mice become cancerous by: injecting the buccal mucosa of the right mouse with benzopirene 0.04 mg dissolved in 0.04ml olive oil, 3 times a week for 4 weeks. Giving PGL at a dose of 75 mg / kg BW / day for 4 weeks. Examination using immunohistochemistry and tunnel assay techniques. The results showed that administration of pomegranate whole extract (PGL) group P1 could kill cancer cells by decreasing VEGF expression 0.183 ± 0.098 compared to KO group 0.133 ± 0.103 did not differ significantly, differ significantly in comparison with K1 group 0.350 ± 0.104 . Whole pomegranate extract (P1) killed cancer cells by increasing apoptosis expression highest 0.367 ± 0.196 compared to the KO group 0.083 ± 0.132 and K1 0.050 ± 0.054 significantly different than KO and K1. In conclusion, the mechanism of action of pomegranate extract (PGL) / P1 in killing cancer cells is by increasing apoptosis expression and decreasing VEGF expression.

Biography

Sri Hernawati has completed her PhD at the age of years from Airlangga University. She is the vice dean of Faculty of Dentistry University of Jember, Indonesia. She has published more than 10 papers in reputed journals.

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Plant-based Compounds for Maintenance of Oral Biofilms

Oral biofilm or dental plaque is a localised concentration of bacteria embedded in a soft matrix that covers the tooth surface. At the early phase of formation, it comprised of salivary components which serves important role as binding receptors for pioneer oral bacteria. Assisted by electrostatic and hydrophobic interactions between these microbes and saliva-coated tooth surface, the adhering cells grow, generates energy through metabolism and multiply, eventually forming ecosystem of the oral cavity. Predominancy of microbes within this ecosystem has been shown to be affected in response to diet, antibiotic treatment and also to aging, as surfaces of teeth for bacterial adherence gradually reduces. It is shown that the candidal species increasingly predominate in oral cavity of the elderly adults. Common oral diseases associated with biofilm includes dental caries and periodontal diseases. Effective biofilm control strategies forms the basic principle in the prevention of these diseases. Many chemical-based dentifrices and mouth rinses are widely used for the maintenance of oral health. However, though effective, there has been concern on their side effects. We have shown that compounds from several plants are effective in reducing the formation of oral biofilm. Many exhibited bacteriostatic effect on biofilm microbes rather than bactericidal like chlorhexidine. The targets of these compounds were suggested more towards inhibiting bacterial adhesion and suppression of cell growth activities at various phases of biofilm formation. In other words, by preventing or limiting bacterial adhesion and their subsequent growth on the tooth surface, the severity of biofilm-associated diseases can be minimised.



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Biography

Dr Fathilah was awarded PhD by the University of Malaya in 2005 in the area of Oral Biology. Her research passion revolves around the oral ecosystem and interactions between various components of the oral environment. Currently she is the Head of the Oral & Craniofacial Sciences Department that focuses on bridging knowledge of basic medical sciences with the dental curriculum. She has published numerous articles and is actively involved in reviewing scientific manuscripts for various journal publications.