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Research Article **Published Date:- 2023-11-03**

The Use of Polyetheretherketone (PEEK) in Implant Prosthetics: A Detailed Review of the Literature

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Research Article **Published Date:- 2023-10-09**

Laser Doppler Flowmeter as a Periodontal Evaluation Method: A Clinical Pilot Study

Background and objectives: Periodontal disease, as an inflammatory pathology, induces hemodynamic changes that can be evaluated by different unbiased methods such as laser Doppler flowmetry. This clinical investigation assesses laser Doppler as a non-invasive procedure to monitor gingival vascularization and its potential relationship with the response to treatment of periodontal disease.
Materials & methods: 45 sites of white Spanish patients with active periodontitis undertake a complete periodontal analysis. This included periodontal pathogens identification along with the monitoring of the gingival margin microvascularization using a Doppler laser at the points exhibiting the most periodontal damage. All assessments were performed before and after periodontal combined treatment PCT (scaling, root planing, and antibiotic therapy prescription) (n = 45 sites).
Results: Parameters of periodontal disease showed a positive correlation with pathogen levels. Blood flow readings decreased significantly after PCT ($p < 0,05$), although this parameter was not statistically correlated with periodontal nor microbial assessments in a significant range.
Conclusion: Laser Doppler is a complementary method of monitoring periodontal inflammation to traditional techniques of clinical periodontal evaluation. Further studies are necessary to determine its usefulness as a predictive method of periodontal disease evolution.

Research Article **Published Date:- 2023-09-07**

Orthodontic Patients' Perception of Orthodontic Office Changes during COVID-19 Pandemic in Brazil: A National Cross-Sectional Survey

There is still limited information regarding patients' perception of the dental approach changes in the pandemic circumstance. Therefore, the aims of this study were, firstly, to evaluate patient perception regarding the COVID-19 infection risk in the orthodontic office in Brazil, and to assess the influence of age in infection risk perception. Orthodontic patients from five states answered an online questionnaire, anonymously, about quarantine behavior, perception of the infection risk in the orthodontic office, as well as the apparent need for the new biosafety approach. Descriptive analyses were performed for each question. Correlations between age and concern of getting infected were calculated with Spearman correlation tests. There were 406 responses. Most patients respected the quarantine, and 93.10% of those who were scheduled for appointments realized that their appointment would be safe enough. From the total, 83.99%, 84.98%, 89.90%, and 95.81% of patients judged, respectively, health status checks by phone, temperature checking, disposable coat, and face shield, as necessary. Only 6.40% reported an increase in the concern of returning to appointments. The younger the patient, the greater the concern of getting infected in future appointments ($p = 0.042$). Most patients were confident in the professional care before the appointment. The new biosafety approach was well accepted by the majority, with less agreement with temperature checking and the use of disposable coats. The younger the patient, the greater the concern of getting infected in future appointments. The rate of patients with risk factors for COVID-19 was 14.77%.

Mini Review **Published Date:- 2023-08-17**

High Magnification in Dentistry; Postural Benefits using Magnification Loupes to Improve Dental Work Performance

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Stress, pain, injuries, and errors in dental procedures are situations highly linked to dentistry derived from multiple factors making this profession a profession with high physical and mental demand to achieve quality treatment without deteriorating the health of those who perform it, in this case, the dentist, the assistant, and hygienist.
The effects of wrong postures, but above all, the lack of knowledge of the proper postures, the modeling of bad habits acquired during the training stage in dental school, and the lack of work guidelines that not only take into account the dentist but also to all the work staff and the methodological organization of dental tasks can be found in the scientific literature.
Magnification devices are known to improve vision, precision, and ergonomics in dentistry; advances in the area of ??high magnification in dentistry are taking place by leaps and bounds. In recent years, a new magnification loupes design has appeared on the market, called ergonomic magnification loupes appeared that stands out from conventional Galilean and Keplerian through the lens (TTL) Flip-up loupes in terms of their postural benefits and is part of the arsenal of magnification loupes to consider in the market.
The postural approach of high magnification equipment is necessary for professional practice, where the design of Ergonomic magnification loupes with consideration not only for magnification but also for the operator's postural health which can have a significant impact on the performance and overall health of the dentist and hygienist, more if incorporated from the beginning of dental school education and training.

Research Article **Published Date:- 2023-06-02**

Oral hygiene status: The critical parameter in orthodontic patient

Aim: The aim of this study was to evaluate the oral hygiene status of patients with fixed mechanotherapy appliances.
Methods and materials: The following indices were used to evaluate the oral hygiene status of patients in orthodontic treatment: Gingival Bleeding Index (GBI), Plaque index (PI) and OrthoPlaque Index (OPI) at three intervals.T0 (day 1), T1 (15 days), T2 (30 days) for a period of one month.
Results: 10 patients (15-30 years old) were selected for the study from among the orthodontic patients treated at the Department of Orthodontics & Dentofacial Orthopedics, AIDSR, Adesh University. Results showed that the mean PI decreased significantly from T0 to T1 & then from T1 to T2, GI decreased significantly from T0 to T1, but then, no significant difference could be found in GI from T1 to T2, OPI decreased significantly from T0 to T1, but then, no significant difference could be found in OPI from T1 to T2. No significant difference was observed between male and female patients for the PI, GI and OPI.
Conclusion: Inadequate oral home care among orthodontic patients may increase their risk of gingivitis during treatment. As a result, oral hygiene instructions and a hygiene maintenance program must not be overlooked during orthodontic treatment.

Case Report **Published Date:- 2023-04-14**

Effectiveness, longevity, and color stability of in-office bleaching (6% H_2O_2 gel/Violet LED) and diastema closure with direct composite: 3-year follow-up

To reduce bleaching side effects, the use of low concentrations of Hydrogen Peroxide (HP) agents associated with hybrid light (violet LED/Diode Laser) has gained interest.
Case report: The aim of this report is to describe a case of a 16-year-old patient that presented a complaint related to the color of his teeth and a maxillary midline diastema. In-office bleaching with 6% HP associated with hybrid light (violet LED/Diode Laser) was performed. The bleaching gel was applied once on the teeth and light-activated for 1 minute (15 times) followed by 1min intervals (15 times) with a total bleaching time of 30 minutes. After the bleaching procedure, the teeth were polished and the desensitizer was applied for 4 minutes. Two bleaching sessions were performed at a 1-week interval. The diastema was closed with direct resin composite restorations without any tooth preparation. The conventional 3-step bonding agent was used and A1 dentin shade and B1 enamel shade were used followed by polishing discs. At 3-year recall, discoloration and fractures were not found on the the teeth or restorations and patient was completely satisfied.
Conclusion: the conservative and safe option of bleaching with a low-concentrated HP gel associated with violet LED light is an interesting option for young patients and presents longevity over time.
