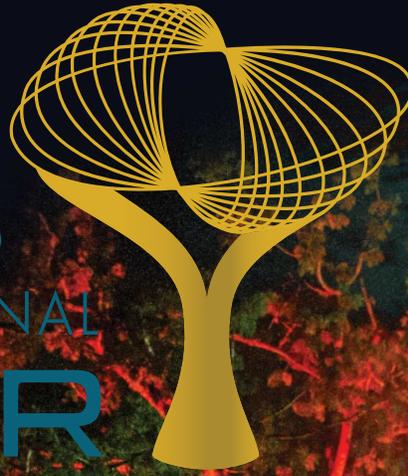


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FC 1

Código do Trabalho: ABOR016

Autores:

ALBERTIN SA*, PINZAN-VERCELINO CRM, BRAMANTE FS, GURGEL JÁ

DOES AESTHETIC EPOXY AND RHODIUM-COATED WIRES RELEASE THE SAME FORCE AS THEIR UNCOATED COUNTER?**Resumo:**

The aim of this study was to compare the mechanical property of deflection between the aesthetic Nickel and Titanium (NiTi) wires covered with rhodium and covered with epoxy resin. Forty-four .018" NiTi wire segments were equally divided into 4 groups: GC- conventional NiTi wire, GE- conventional NiTi covered with epoxy resin, GR- thermoactivated NiTi coated with rhodium and GT- thermoactivated NiTi. The wires were evaluated regarding the load x deflection property in a universal testing machine (standard ISO15841). The transversal section dimensions of each wire were measured by digital caliper and scanning electron microscopy (SEM). These transversal section were similar for all wires when measured by caliper. However, the MEV images, measured by the softwear image J, exhibit differences in the inner alloy core dimensions and in the coating thickness. Statistically significant differences in force values were observed: at 0.5mm GE presented higher force. At 1,0 mm, the GC and GE wires exhibited higher force/deflection than GR and GT. At 2 mm, the GC wire showed higher force than the others tested wires, while GR and GT obtained the lowest force. Finally to 3mm deflection, the highest force was obtained for the GC wire, while GR showed the lowest force. Depending on the deactivating force, it is possible to conclude that the force released by the coated aesthetic NiTi wires may be higher, lower or equivalent to their uncoated counterparts.

Descritores:

Orthodontics; Orthodontic corrective; Orthodontic appliance desing

Fonte: Fapema - Fundação de Amparo à Pesquisa e Desenvolvimento Científico do Maranhão

FC 2

Código do Trabalho: ABOR222

Autores:

ANA LUCIA FERNANDES DA SILVA, RODRIGO HERMONT CANÇADO, FABRICIO PINELLI VALARELLI, KARINA MARIA SALVATORE FREITAS

COMPARISON OF LOAD/DEFLECTION RATIO OF THERMAL ACTIVATED NICKEL-TITANIUM WIRES WITH AND WITHOUT THE ADDITION OF COOPER

Resumo:

The aim of this study was to compare the load/deflection ratio of Thermal Activated Nickel-Titanium orthodontic wires with and without the addition of copper. Three commercial brands of Thermal Activated Nickel-Titanium orthodontic wires were selected: Orthometric, Morelli and Eurodonto, and a total of 60 arches were used. The superelasticity was evaluated in a Universal EMIC DL1000 Testing Machine by means of a three-point bending test and the forces generated by these wires were compared on activation and deactivation. The results revealed significant differences between all wires in all superelasticity parameters evaluated. The addition of copper causes a significant decrease in the activation, deactivation and hysteresis forces of the wires from Morelli and Orthometric. When evaluating Eurodonto's wires, it was verified that the addition of copper causes a significant decrease in the activation forces and significantly higher forces at the end of the deactivation (1mm and 0.5mm) and a significantly higher hysteresis. The addition of copper in Thermal Activated Nickel-Titanium orthodontic wires results in a better performance in the superelastic parameters.

Descritores:

Orthodontic wires; Elasticity; Materials Testing

FC 03

Código do trabalho: Abor 0025

Autores

BRITO GM*, OLIVEIRA RLB, VIEIRA CIV

EFFECTS OF MAXILLARY PROTRACTION THERAPY AND PALATAL DISJUNCTION IN THE TREATMENT OF CLASS III MALOCCLUSION**Resumo:**

The Class III malocclusion is a dentofacial deformity determined by a sagittal skeletal discrepancy between the apical bases. Of all the malocclusion, showing the greatest genetic potential as having the greatest enemy during and after treatment, the growth. In this paper, the author intends to present a literature review on the appropriate time for orthodontic treatment of this malocclusion and intervention, when characterized by maxillary deficiency, through techniques and current issues of maxillary protraction, as well as its effects and results on the skeletal system, dental and muscle in subjects in the deciduous and mixed dentition. Thus, for most cases, the treatment of choice will be some form of protraction and should be done early, making it a challenge for the orthodontist, because, besides the craniofacial complex is genetically determined, and the weight of the heritability the collaboration of the individual are extremely critical. The maxillary protraction associated with palatal disjunction is one of the initial interception procedures applied in correcting more Class III and more satisfactory and stable results of treatment. Among these results, the anterior maxillary displacement and the clockwise rotation of the mandible are the most commonly found

Descritores:

Malocclusion Angle Class III; Extraoral Traction Appliances; Palatal Disjunction

FC 04

Código do trabalho: Abor 0027

Autores:

BASTOS RTRM*, NORMANDO D

DISCRIMINANT ANALYSIS OF AMAZONIAN INDIGENOUS GROUPS THROUGH DENTOFACIAL BIOMETRY**Resumo:**

The aim of this cross-sectional study was to examine the role of dentofacial morphology in discriminating semi-isolated indigenous population groups from the Brazilian Amazon. This study is in accordance with the recommended guidelines for cross-sectional studies (STROBE Statement). The face dimensions were measured through facial photogrammetry, dental arches and teeth, using plaster models. A total of 98 permanent dentition belonging to 4 indigenous groups were analyzed: Arara-Iriri (n=20), Arara-Laranjal (n=33), Assurini (n=25) and Xicrin-Kayapó (n=20). The random and systematic error of the performed measurements was verified using the Dahlberg formula and the intraclass correlation coefficient, respectively. In order to evaluate the discrimination capacity of the included variables in the identification of the indigenous groups, the discriminant analysis was performed at $p < 0.05$. A small casual error level and an excellent replicability of the face measurements (ICC 0.75-0.99, $p < 0.0001$) and of the models (ICC 0.94-0.99, $p < 0.0001$) were observed. In both sexes, the discriminant analysis revealed an intragroup homogeneity and great intergroup heterogeneity. Dentofacial biometry revealed an accuracy of 98% in the identification of female subjects and 100% in men. The results of this study make possible to conclude that anthropometric measures of the face, teeth and human dental arches dimensions are very useful to identify Amazon remote indigenous groups

Descritores:

Indigenous Population; Discriminant Analysis; Biometry

FC 05

Código do trabalho: Abor 030

Autores:

VASCONCELOS KS*, BANCECA AG, VALARELLI DP, CONTI ACCF, CARDOSO MA, PEDRIN RA

RETROSPECTIVE STUDY OF RISK FACTORS ASSOCIATED WITH THE FAILURE OF MINI-IMPLANTS USED FOR ORTHODONTIC ANCHORAGE.**Resumo:**

This study evaluated the failure rate for stability of mini-implants used as orthodontic anchorage. Two hundred and eighty-two mini-implants from four commercial brands (Morelli, SIN, Neodent and Conexão) were evaluated in one hundred and twenty-seven patients (84 females and 43 males, mean age 38,88 years). Patients were randomly selected in three postgraduate courses and in a private clinic. Failure was considered when the mini-implant presented mobility or loss within a period of up to 6 months from its installation. The failure rates were evaluated according to 10 clinical variables (age, gender, length of the mini-implant, marking, bone base, side, gingival tissue proximity to the root, mechanics used and force used). To evaluate the influence of age on the failure rate of mini-implants the t-test was performed. The other variables studied were evaluated using the chi-square test. For variable gingival tissue was applied Fisher's unilateral test. The overall mean of failure was 12,76%. The variables mini-implant length and root proximity showed statistically significant differences in failure rates. The installation of mini-implants between roots presents a significantly higher failure rate than in the edentulous area and for the variable length of the mini-implant, more statistical tests would be necessary to correlate with factors that led to instability of the mini-implants.

Descritores:

Orthodontic Anchoring Procedures; Orthodontics; Treatment failure

FC 06

Código do trabalho: Abor 035

Autores:

GAMBARDELA-TKACZ, CM; JANSON, G; PINZAN, A; FREITAS MR; FREITAS KMS

COMPARATIVE STUDY OF THE DENTAL ARCH SHAPE IN YOUNG BRAZILIANS WITH NORMAL OCCLUSION**Resumo:**

Aim: This study was developed to determine the normative values of dental arch length and width and to identify the shapes of the dental arches of Brazilians with normal occlusion. **Methods:** The sample included 100 digitized dental casts from untreated subjects with normal occlusion divided by ethnic groups. The dimensions and shapes of the dental arches were determined and compared. **Results:** Japanese women had the largest distances in the lower and upper posterior variables among all groups. White men presented the smallest transverse dimensions. Black men had the largest maxillary dimensions except for intermolar width. The arch shape of the Japanese-Brazilian women was the narrowest at the molar area. Mulatto men had the largest dental arches in the anterior area. **Conclusions:** According to the results obtained, there was a slight variation in the shapes of dental arches between ethnic groups. Individual and ethnic characteristics in treatment should be considered.

Descritores:

Dental Arch; Ethnic Groups; Dental Occlusion

FC 07

Código do trabalho: Abor 037

Autores:

OMENA ALCS*, LOPES NETO DF, LIMA FILHO HL, MATTA ENR

ANALYSIS OF THE ATTRACTIVENESS OF SMILE BASED ON DIFFERENTS DIRECT-BONDING BRACKETS PROTOCOLS**Resumo:**

There are several suggestions for direct-bonding brackets mentioned by many authors. After the alignment and leveling dental phase. There is a wish to obtain suitable and aesthetic dental heights. The aim of this study was to analyzed how attractive the smile depends on the position of incisors coming from different direct-bonding brackets protocols. Photographs of smiles' samples were randomly selected of men and women. The photographs were manipulated according to the protocols of Andrews, Roth, Mc Laughlin and Bennett, Ruellas and two protocols suggested by authors of this study (Suggestions "1" and "2"). Thirty dentists, thirty orthodontists and thirty lay people were interviewed. The evaluators marked the attractiveness of the smile on a visual analog scale. The analysis of variance ANOVA and Tukey post-hoc tests were done by the software Bioestat 5.0. The level of significance was 5%. The protocols of Andrews, Suggestion "1" and Suggestion "2" were the most attractive and did not have statistically significant differences between them. The lowest averages were given from orthodontists, dentists, and lay people to the protocols suggested by Roth and Ruellas. Roth protocol had statistically significant differences when compared with the protocols suggested by Andrews, Suggestion "1" and "2".

Descritores:

Smiling; Esthetics, Dental; Orthodontics

FC 08

Código do Trabalho: Abor 039

Autores:

PEREIRA ABN*, CARVALHO FAR, ARTESE FRG, DARDENGO CS.

3D MAPPING TO ANALYZE THE INFLUENCE OF ORTHODONTIC RETRACTION OF ANTEROSUPERIOR TEETH ON ROOT RESORPTION**Resumo:**

Computed tomography is a reliable method to reveal root resorptions, since the three-dimensional images provided by this examination facilitate the early detection, measurement and exact location of the lesion, being superior to other radiographic methods in the visualization of these alterations. The aim of this study is to follow the root morphology of canines and upper incisors in patients submitted to four premolar extraction and orthodontic retraction of the anterior teeth. Six adult patients were evaluated, who underwent orthodontic treatment at the UERJ department of orthodontics. All the individuals had bimaxillary dental protrusion, with indication of first four bicuspids extraction, followed by the retraction and space closure. Cone beam CT scans were performed before the beginning of treatment (T0) and soon after the space closure (T1). 3D models of the teeth were built at both times and superimposed to identify the root changes for the given period. Results show that all the recorded average differences were close to zero, and even evaluating the extreme values, the observed changes were always smaller than the sensibility of the CBCT. The one sample t-test was not able to identify any difference of means from the arbitrated value, which was zero. Conclusion: A mild resorption trend was observed, although it wasn't clinically significant with the values ranging behind the tomography sensibility.

Descritores:

Root resorption; Tooth movement; Computed tomography

FC 09

Código do Trabalho> Abor 047

Autores:

CAROLLYNE MOTA TIAGO, ANGELA MARIA SILVA, BRUNO GRIBEL, PAULO ROBERTO ARANHA NOUER

THREE-DIMENSIONAL ANALYSIS OF MAXILLARY MOLARS AFTER APPLICATION OF INTRUSIVE FORCES ANCHORAGE IN MINI-IMPLANTS: RANDOMIZE**Resumo:**

The aim of this longitudinal, double-blind, prospective clinical trial was to clinically evaluate, by means of 3D digital casts, four forces for intrusion of maxillary molars, by using mini-implants for orthodontic anchorage. The sample consisted of 50 patients and 68 extruded maxillary molars, randomized into 4 groups with different intensities of intrusive forces, G1= 50gf, G2=100gf, G3= 200gf, G4= 400gf. The self-perforating mini-implants were inserted under local anesthesia, by a single operator, with one mini-implant being placed in the mesial, palatal, and the other in the distal region, and vestibular to the tooth in question. The force was applied by inserting synthetic chain elastics, starting from the mini-implants and going to the orthodontic accessories bonded to the vestibular and palatal surfaces of the molar to be intruded. Dental casts were obtained before (T1) and after (T2) intrusion of the molars, and they were scanned with a 3-dimensional dental scanner. The data relative to intrusion of the maxillary molars were submitted to multivariate analysis of variance (MANOVA); test of variance (ANOVA) and Tukey test with a 5% level of significance. The mean time of intrusion ranged between 5.7 and 8.3 months; with the teeth in the groups that had the lowest forces applied (50 g and 100 g) being intruded more rapidly ($p=0,031$). The mean quantity of intrusion ranged between 1.50 mm and 3.59 mm. Vestibularization and inclination occurred in all the groups evaluated, with a greater increase in the arc of vestibularization in Group 4 (400 gf, $p=0,009$). Therefore, based on the methodology applied, the authors could conclude that maxillary molar intrusion was observed, accompanied by side effects of vestibularization and inclination, the effects of which are proportional to the applied force.

Descritores:

Orthodontic Anchorage Procedures; Tooth Movement Techniques ; Dental Models

FC 10

Código do trabalho: 048

Autores:

GONZAGA AS*, GONZAGA DS, MARTINS RP, CALDAS SGFR

MECHANICAL, THERMODYNAMIC AND CHEMICAL CHARACTERIZATION OF COMMERCIAL CUNITI WIRES**Resumo:**

Objectives: Characterize mechanically, thermodynamically and chemically CuNiTi commercial wires in order to verify the superelastical and termical properties of these wires. Material and Methods: 40 precontoured CuNiTi archwires, 0.017" x 0.025" with Af temperature of 35°C, from 5 manufacturers, American Orthodontics® (G1), Eurodonto® (G2), Morelli® (G3), Ormco® (G4) e Orthometric® (G5). The wires underwent a verification of standardization test of their dimensions, tensile tests, MEV-EDS and differential scanning calorimetry (DSC) test. Parametric tests (ANOVA OneWay and Tukey post test) were used, considering a significance level of 5%. Results: All wires presented standardized dimensions of 0.017 "x0.025" and superelastic behavior with SE rate higher than 8 and the following means of force plateau - G1 36,49N; G2 27,34N; G3 19,24N; G4 37,54N; e G5 17,87N. In the DSC assay, the means of Af for G1 (29.40°C), G2 (29.13°C) and G3 (31.43°C), had $p > 0.05$ relative to each other. G4 (32.77°C) and G5 (35.17°C) presented statistically significant differences between themselves and among the other groups. MEV-EDS assay for all samples presented Ni, Ti, Cu and Al in different concentrations. Conclusion: All wires have superelastic behavior. G5 wires were the only ones having an Af temperature similar to that indicated by the manufacturer. G5 and G3 showed the lowest plateau means during deactivation. Cu is fundamental to stabilize the TTRs, however in non-equiatomic alloys a higher concentration of Al seems to be fundamental to raise the transition temperature.

Descritores:

Orthodontics; Orthodontic wires; Corrective orthodontics

FC 11

Código do trabalho: 03

Autores:

CUNHA AS, MATSUMOTO MA, TAKAHASHI CS, NELSON-FILHO P.

GENOTOXIC AND CYTOTOXIC EVALUATION EFFECTS OF HAAS APPLIANCE BY MICRONUCLEUS ANALYSIS.**Resumo:**

The objective of the present study was to evaluate the genotoxic effects caused by Haas appliance in oral mucosal epithelial cells of patients submitted to orthodontic treatment, through micronuclei and cytogenetic damage analysis. The study included 29 patients between 06 and 12 years of age, both genders, who required Haas appliance for correction of posterior crossbite. Epithelial cells from the cheek mucosa were collected from both sides, performed by gentle scraping with a scientific brush. The cells were collected before (T0), one month after the device was installed (T1) and 3 months after the appliance immobilization (T2). The cells were processed to obtain slides, Feulgen/Fast Green was used as staining method for counting the number of normal, kariolytic, pyknotic, nuclear buds, binucleate and micronucleus cells under light microscopy. The cellular abnormalities were evaluated with the parametric and non-parametric tests for comparison of the means by ANOVA test followed by the Tukey test or by the Kruskal-Wallis test, followed by Dunn's test. The significance level was 5%. There was a statistically significant increase in all abnormalities tested ($p < 0.05$). Except for the micronuclei, where between T1 and T2 statistically significant was not found ($p > 0.05$). In conclusion, this study demonstrates that the Haas appliance may cause genotoxic and cytotoxic effects, in vivo, in the beginning of treatment.

Descritores:

Palatal Expansion Technique; Micronucleus Tests ; DNA Damage

FC 12

Código do trabalho: Abor 068

Autores:

MENESES ATR•, NEVES FS

INFLUENCE OF CRANIOFACIAL MORPHOLOGY IN THE THICKNESS OF INFRAZYGOMATIC CREST**Resumo:**

The aim of this study was to evaluate the tomographic measurements of the infrazygomatic crest for placement of temporary anchorage devices in individuals with different skeletal classes and facial patterns. The images were evaluated by multislice computed tomography of 67 patients and the measurements were performed on four regions in the crest, parallel to the long axis of the upper first molar: A slice in the long axis of the mesio-buccal root, two slices passing through the center of the furcation, and a slice in the long axis of the distobuccal root. In each of these slices five measurements of the thickness of the infrazygomatic crest were performed, with a difference of 1 mm between them. The skeletal class was determined by the ANB angle and the facial pattern by the SN.Go.Gn angle. Data were analyzed using the intraclass correlation and Analysis of Variance (ANOVA) with Tukey post hoc, with significance of 5%. Analyzing the means it was observed a tendency of the infrazygomatic crest to be thicker in the furcation region, gradually decreasing in the apical direction. Class I male patients presented a statistically significant lower thickness in the furcation region in relation to Class II and Class III patients. There was no statistically significant result in comparison with the facial pattern. In conclusion, male Class I patients require more caution during the insertion of skeletal anchorage devices in order to avoid complications such as maxillary sinus perforation.

Descritores:

Tomography, X-Ray Computed ; Orthodontics; Maxilla

FC 13

Código do trabalho: Abor 079

Autores:**RELIABILITY OF DENTAL CROWDING MEASURING WITH INTRAORAL SCANNER AND VISUAL ANALYSIS****Resumo:**

The aim of this study was verify the reliability of three different methods of diagnosis of dental crowding (analysis in plaster model, digital analysis on scanned models and visual analysis) and the time of execution. 14 patients were scanned (INTRA-ORAL SCANNER 3Shape TRIOS® 3D) and their plaster models were used as the control group. Direct visual analysis was carried out by 20 experts in orthodontic with more than 05 years of clinical practice in the 14 plaster models and 01 replicated model, and the time of execution was measured. Wilcoxon statistical test was used to compare the methods and analysis of variance to compare time. The systematic error analysis was verified by intraclass correlation coefficient (ICC) and observed by scatter diagram according to Bland and Altman technique. The significance level (α) was set at 5%. Direct visual analysis showed that there was a greater difference between the groups for the dental crowding levels, in the upper and lower arches, when compared to digital analysis, but this analysis did not represented statistical differences to the control ($p < 0.05$). According to the value of the ICC, the reproducibility was excellent in all pairs of comparison, with higher values for the upper arch. Visual analysis showed a lower average time of observation. The visual and digital methods used to measure the dental crowding have good clinical reproducibility, and may be used as a reliable alternative in planning orthodontics.

Descritores:

Malocclusion; Dental Models; Data Accuracy

FC 14

Código do trabalho: Abor 084

Autores:

LISBOA CO*, MARTINS MM, MAIA LC, FERREIRA DMTP, MATTOS CT

SOFT TISSUE ASSESSMENT BEFORE AND AFTER MANDIBULAR ADVANCEMENT OR SETBACK SURGERY USING 3D IMAGES: META-ANALYSIS

Resumo:

The aim of this systematic review was to evaluate the effects of mandibular advancement or setback surgery on facial soft tissue using 3D images. An electronic search was performed in Medline, Cochrane Library, Scopus, VHL, Web of Science, and OpenGrey, ending July 2016 with database alert until May. Specific strategies were developed for each database, with the guidance of a librarian and two reviewers independently analyzed the titles and abstracts for inclusion. Inclusion criteria involved evaluation of adults; evaluation of patients undergoing mandibular surgical procedure clearly described; assessment soft tissue before and after surgical procedure obtained from computed tomography or magnetic resonance imaging. Two reviewers assessed the eligibility of studies. The level of evidence and bias was determined for all eligible studies according Quality Assessment Tool for Before-After (Pre-Post) Studies With No Control Group for appraising a medical article. A total of 2048 studies were retrieved; after the exclusion of repeated articles, the titles and abstract of the remaining ones were read and 2017 of them were excluded. Thirty-one articles were read in full and 6 articles fulfilled the inclusion and exclusion criteria. A meta-analysis was performed. The correlation coefficient in chin area was significant and strong ($r=0.876$ and $r=0.868$) and was moderate between lower lip and incisor inferior ($r=0.690$). The ratio for LL/Id was 78%, and for Pog'/Pog was 98%. There is moderate evidence to infer changes in soft facial tissue due to mandibular advancement or mandibular setback, but the changes in lower lip tends to be smaller than changes in chin area.

Descritores:

Orthognathic Surgery; Imaging, Three-dimensional

FC 15

Código do trabalho: Abor 088

Autores:

COSTA CARVALHO ACS, PINZAN VERCELINO CR, BRAMANTE FS, GURGEL JÁ

EVALUATION OF GINGIVAL EXPOSURE IN AESTHETICS OF SMILE**Resumo:**

The objective of the present study was to evaluate gingival exposure in smile aesthetics, comparing the evaluations among lay and dental surgeons of the following specialties: dental, orthodontics, prosthesis and periodontics. Photographs of gingival smile carriers (one male and one female) were performed and later manipulated in the computer through the Adobe Photoshop CS 4 program, altering the height of the upper lip relative to the cervical margin of the upper central incisors. Images were printed and assembled in an album in random order. These were classified into: 3mm gingival exposure, 1mm, 5mm central incisors, 5mm gingival exposure and 3mm gingival exposure. The album along with a visual analogue scale was presented to the evaluators and the scores were measured in millimeters with a digital caliper. The Kruskal-Wallis, Mann-Whitney, Spearman correlation tests were applied for statistical analysis at the 95% confidence level. The female smile with gingival exposure of 1mm was considered more pleasant for lay and professionals. Both lay and professionals considered the male and female smile with 5mm gingival exposure the least pleasant. However, specialists in dentistry, periodontics and prosthetics classified the smile with 1mm of gingival exposure as being more pleasant. The variation in height of the gingival border of the upper central incisors significantly changes the aesthetic perception of the smile.

Descritores:

Gingival Hypertrophy; Esthetics, Dental

FC 16

Código do trabalho: Abor 109

Autores:

DALTRO ENÉAS RITTER, ROBERTO ROCHA, GERSON LUIZ ULEMA RIBEIRO, CAIO BRIDI

AESTHETIC EVALUATION OF ORTHODONTIC BRACKETS**Resumo:**

One of the main reasons that motivate a patient to start orthodontic treatment is the aesthetic factor. Due to the increasing demand of adult patients seeking esthetics during orthodontic treatment, the industry has sought to offer treatment alternatives. The objective of this work was to evaluate the opinion of the lay public, to different types of orthodontic brackets in men: metallic, ceramic and sapphire. Three male individuals of different ages (15, 30 and 59 years) were selected and photographs were taken using the 3 different brackets. Data were collected using the Google Docs® software, where reviewers rated from 0 to 10 for each type of bracket. The statistical method of correlation, hypothesis tests and descriptive statistics were used. 215 people were interviewed and notes were obtained for each type of device. Including all parameters (gender, schooling, age, and average family income), the best evaluated in decreasing order were the ceramic, sapphire and finally the metallic ones. There was no statistical difference between the ceramic and sapphire brackets. It was concluded that the women prefer the aesthetic brackets to the metallic brackets. Higher education contributed to assigning higher grades to aesthetic brackets. Older individuals tend to choose the most aesthetic brackets. Evaluators with higher income showed tendencies to better evaluate the esthetic brackets.

Descritores:

Esthetic; Evaluation; Orthodontics

FC 17

Código do trabalho: Abor 112

Autores:

MAUES CPR*, CASAGRANDE MVS, OTRANTO A, CARVALHO FAR.

VALIDATION OF METHODOLOGY FOR 3D EVALUATION OF MOVEMENTS IN CBCT**Resumo:**

This study proposes to validate a methodology of 3D superimposition in cone beam computed tomography (CBCT), that can be used for evaluation and planning of several therapies used in orthodontics and surgery. The ethics approval was obtained (nº 46729315.3.0000.5259). In the Dolphin3D® software, CBCT of 10 patients was used, in which randomly chosen surgical movements were performed according to the envelope of discrepancy of Proffit. The model of the regions of interest (maxilla and mandible) was also generated with ITK-SNAP® software, as it presents better surface quality than the models obtained with Dolphin3D®. The files were imported to Geomagic Qualify®, in which the models obtained in ITK-SNAP® were placed in the same spacial position than the models in the Dolphin3D®. Then, the evaluation of the movements was performed. For each structure (initial and simulated maxilla and initial and simulated mandible) a point (centroid) was created automatically by the software. Through the changes in coordinates X, Y e Z, in the centroid of simulated structures, relating them to the initial structures, it was possible to observe the occurred movements. The normality of the sample was verified by the kolmogorov-smirnov test. The one-sample t-test showed no statistically significant difference in both the maxilla (p=0,55) and the mandible (p=0,19). It can be concluded that the methodology used demonstrated accuracy in the three-dimensional determination of the positioning of the evaluated structures.

Descritores:

Cone-Beam Computed Tomography ; Orthognathic Surgery ; Imaging, Three-Dimensional

FC 18

Código do trabalho: Abor 113

Autores:

ARAÚJO ME*, ARRAIS AB, LIMA RRM, CALDAS SGFR

INFLUENCE OF A HIGH POTENCY LED ON RETINA - AN EXPERIMENTAL PILOT STUDY IN RAT.**Resumo:**

The present study aimed to evaluate the influence of the use of a light emitting diode-based device (LED) in the retina of a rat. A single Wistar rat was used as the object of study, one eye was considered as control sample (left eye) and the contralateral eye as experimental sample (right eye). The experimental eye was exposed to LED light at Xtra potency mode of 3200mW/cm³ (Valo Ortho - Ultradent), for 144 seconds, at the distance of 30cm, following a protocol of three exposures per day, for one day, within 4 hours between each application. After seven days, retinal specimens of the animal were obtained for histological analysis. The methodology used was previously approved by CEUA of UFRN, under protocol no. 007012/2017. Results showed a statistically significant raise in thickness and in to the density of the layers of the retina. It was also observed an increase in the nuclear area of the cells, increase of cones and rod extensions, increase of cytoplasmic space in the internal nuclear layer and hyperchromatous cells suggestive of pyknosis. Despite the short and acute protocol of eye exposition to high potency LED, a metabolic activity, especially, was found in photosensitive and neuronal cells, which emphasize the importance of using eye protection during the use of these devices, as well as a further research on the long term effects with more animals.

Descritores:

Curing Lights; Orthodontics; Retina

FC 19

Código do trabalho: Abor 119

Autores:

LIBDY MR*, RABELLO NM, MARQUES LS, NORMANDO ADC.

THE ORTHODONTISTS AND MAXILLOFACIAL SURGEONS ABILITY IN PREDICTING SPONTANEOUS ERUPTION OF LOWER MOLAR THIRD THROUGH PA

Resumo:

Objectives: To evaluate the orthodontists (ORTHOs) and maxillofacial surgeons (CBMFs) skill in providing a prognosis of lower third molars (3M) which erupted spontaneously, through follow-up panoramic analysis. **Methods:** 22 orthodontic patients treated without extraction, whose right and left 3M (n = 44) spontaneously erupted were analyzed. The first radiography was obtained just after orthodontic treatment (RX1), aged 13 to 16, and the second one (RX2), was average two years later. The RX were randomly analyzed by 54 specialists, 27 ORTHOs and 27 oral surgeons, to obtain the opinion of the conduct adopted to these teeth (RX1). Then another prognosis was collected by adding a serial radiography (RX1+2). **Results:** The concordance of the answers was moderate for oral surgeons (Kappa 0.44; $p < 0.0001$) and significant for ORTHOs (Kappa 0.39; $p < 0.0001$). In RX1, oral surgeons indicated extraction in 44.5% of cases, while ORTHOs in 42%, with no difference between groups ($p = 0.22$). In RX1+2 analysis, ORTHOs maintained the same level of extraction (45.6%, $p = 0.08$), while surgeons indicated significantly more extractions (63.2%, $p < 0.0001$). **Conclusions:** ORTHOs and oral surgeons are not able to predict the eruption of 3M by examining a single panoramic radiograph. A follow-up analysis, including one more radiography, does not improve the accuracy of prognosis among ORTHOs, and it was worse among oral surgeons. This study suggests that these experts should reassess the radiographic guidelines used to establish a prognosis about the eruption of 3M.

Descritores:

Third molar; Orthodontists ; Maxillofacial surgeons

FC 20

Código do trabalho: Abor 120

Autores:

ARAÚJO RM*, FONSECA ACP, MACHADO AW, CALDAS SGFR

INFLUENCE OF DELETERIOUS MODIFICATIONS IN SMILE IN THE AESTHETIC PERCEPTION BETWEEN DENTAL SPECIALTIES**Resumo:**

The study aimed to verify the aesthetic requirement standard of dental specialties and just graduated dentists in face of aesthetics modifications using a frontal smile analysis. The sample was composed by 30 individuals in each group of specialties (orthodontists, oral rehabilitators, endodontists and just graduated dentists). The number of protocol of the Research Ethics Committee of UFRN was 1,659,761. From an online questionnaire previously developed, each rater was asked to evaluate the attractiveness of 8 different smiles, obtained after an image manipulation on Adobe® Photoshop® CS4 program, using a visual analog scale. The data collected were submitted to statistical analysis by the means of one-way ANOVA with the Turkey post hoc test to do comparisons among groups and the variables of the study. The significance level used to all the analysis was $p < 0,05$. The G1 (orthodontists), G2 (oral rehabilitators) and G3 (graduated dentists) had a similar degree of aesthetic perception statistically. The G4 (endodontists) had less aesthetically demanding compared to the other groups. The gold standard smile was considered the most attractive and the 3 less attractive smiles were those presenting fracture class IV in the upper central incisor, darkening upper central incisor and the diastema between the upper central incisors. It was concluded that groups 1, 2 and 3 were able to identify and evaluate negatively all the smiles that presented modifications. When the deleterious modifications are close to the center of the smile, the less attractive they are considered.

Descritores:

Dental Aesthetic; Dental Specialties; Smile

FC 21

Código do trabalho: Abor 129

Autores:

CASTILHOS BB*, DE SOUZA CM, ALVIM-PEREIRA F, TREVILATTO PC

ASSOCIATION OF CLINICAL VARIABLES AND POLYMORPHISMS IN RANKL/RANK/OPG GENES WITH EXTERNAL APICAL ROOT RESORPTION**Resumo:**

The aim of this study was to investigate the association of clinical variables and polymorphisms in the RANKL/RANK/OPG genes with external apical root resorption (EARR). Method: The sample was composed of 338 unrelated patients of both genders, average age 14.9 years (8-21) with Class II division 1 malocclusion, orthodontically treated. Periapical radiographs of the maxillary central incisor with the longer root (reference tooth) were taken before treatment and six months after starting treatment. DNA was extracted from buccal epithelial cells with 10 M ammonium acetate and 1 mM EDTA. The analysis of 42 polymorphisms in the RANKL/RANK/OPG genes was performed by real time PCR. Univariate and multivariate analyzes were performed to verify the association of clinical and genetic variables with EARR ($p < 0.05$). Results: The initial root length and patient age were associated with EARR. Considering the study of polymorphisms of RANKL gene, no significant association was found of genetic polymorphisms with EARR. For RANK gene polymorphisms, only rs12455775 was associated with EARR. Regarding OPG gene polymorphisms it was found an association of rs3102724, rs2875845, rs1032128 and rs3102728 with EARR. After multivariate analysis, the variables initial root length and the rapid maxillary expansion, as well as rs3102724 of the OPG gene were associated with EARR. Conclusions: Longer roots of upper central incisors and rapid maxillary expansion, as well as allele A of the rs3102724 polymorphism of the OPG gene were associated with EARR in the study population

Descritores:

Orthodontics; Genetic; Root Resorption

FC 22

Código do trabalho: Abor 137

Autores:

ELYNE MENDES FACIOLA XERFAN; SÂMARA DOS SANTOS RAMALHO; SISSY MARIA DOS ANJOS MENDES; RODOLPHO LOBÃO CECIM

AGENESIS OF THE UPPER SIDE INCISORS FROM THE PERSPECTIVE OF THE LAYMAN AND THE DENTIST: OPEN OR CLOSE SPACE?**Resumo:**

OBJECTIVE: Assess the degree of satisfaction of lay people, dentists and orthodontists front closure therapy or opening spaces in cases of agenesis of upper lateral incisors. **MATERIALS AND METHODS:** We evaluated by 20 laypersons, 20 orthodontists and 20 dentists, pictures of spontaneous smile of 30 individuals. Evaluators should measure their satisfaction with the pleasantness smile these patients, of whom 24 had been orthodontically treated with closure or open bilateral and unilateral space of the upper lateral incisor agenesis, and 06 patients were in the control group without any agenesis or malocclusion. One visual analog scale in millimeters as an evaluation method and ANOVA two criteria as statistical test was applied. **RESULTS:** There was no statistically significant difference with respect to smile satisfaction among the treated groups when compared, however, when the treated groups were compared with the control group, it was observed that the level of satisfaction was statistically higher for the group control ($p > 0.05$), both in the assessment of the laity, as the dental professionals. **CONCLUSION:** The evaluation of smile as the closing or opening therapeutic space for orthodontic treatment in cases of tooth agenesis, has similar satisfaction for both lay people and for dental professionals, clinicians and orthodontists.

Descritores:

Dental Agenesis; Satisfaction; Orthodontics

FC 23

Código do trabalho: Abor 061

Autores:

PIRES LR*, BARROS DMC, BRITO HHA, OLIVEIRA DD

RADIOGRAPHIC EVALUATION OF POSITION AND DEGREE OF ROOT RESORPTION OF INFERIOR INCISIVES AFTER INTRUSION WITH THE THREE-P**Resumo:**

Many mechanics used for incisor intrusion have side effects such as incisor projection, extrusion and / or distal tipping of the posterior teeth and root resorption. The three-piece arch (TPA) seems to have potential to prevent such effects, but has not yet been properly studied. This research evaluated whether the TPA adequately controlled this movement and what are its effects on the root structure and in the anchoring segment. Teleradiographies and periapical radiographs were analyzed of 42 patients who had lower incisors intruded with TPA, before (T0) and after treatment (T1). The paired t test and Wilcoxon were used to evaluate the differences between T0 and T1. The mandibular incisors intruded an average of 1.96 mm, with a minimum backward inclination of 0.35° ($p > 0.05$). There was a slight extrusion (0.34 mm) and distal tipping (1.26°) of the lower first molars ($p < 0.05$), without change (0.08°) in the inclination in the mandibular plane ($p > 0.05$). All patients presented degree 1 or 2 of root resorption, which is considered clinically acceptable and the intrusion lasted 3 months on average. The TPA was effective for intrusion of the lower incisors, without causing clinically significant changes in the axial inclination of the incisors, on their root structure and in the anchoring segment.

Descritores:

Overbite; Tooth movement techniques; Tooth root

FC 24

Código do trabalho: Abor 153

Autores:

RABELLO NM*, RANIERI M, MELLO K, NORMANDO D.

THE ABILITY DENTISTS TO PREDICT MANDIBULAR THIRD MOLAR ERUPTION IN CASE EXTRACTION.**Resumo:**

Objective: To assess the effect of extraction of mandibular first premolars on the ability of orthodontists and oral and maxillofacial surgeons (OMFS) to predict mandibular third molar (M3M) eruption. **Material and Methods:** Panoramic radiographs were taken at the end of orthodontic treatment (T1) of 33 patients (mean age of 14 years and 4 months). Four premolars were extracted in 11 patients, but not extracted in 22. Spontaneous and full bilateral eruption of all M3Ms (n=66) was observed when the patients were older than 18 years (T2). M3Ms were asymptomatic at T1 and T2. Radiographs taken at T1 were shown to 27 orthodontists and 27 OMFS, who made a prognosis of M3M eruption. One patient with M3M eruption was used as negative control, whereas two radiographs were duplicated to assess intrarater agreement. **Results:** There was significant, but moderate, agreement between OMFS (kappa 0.47; $p < 0.0001$) and orthodontists (kappa 0.46; $p < 0.0001$). In those patients orthodontically treated with premolar extraction in whom M3Ms erupted spontaneously (T2), as shown by the radiographs taken at T1, OMFS indicated the extraction of M3Ms in 39.05% of the cases compared with 34.8% ($p = 0.14$) among orthodontists. In nonextraction treatments, OMFS recommended the extraction of M3Ms in 44.5% of the patients, whereas orthodontists recommended it in 42% ($p = 0.22$). Orthodontists and OMFS indicated fewer M3M extractions in cases subjected to first-premolar extractions, compared with nonextraction patients ($p < 0.05$). In the negative control group, 79.6% of orthodontists and 74.1% of OMFS ($p = 0.81$) recommended the extraction of impacted M3Ms. The most frequent reason for such recommendation by OMFS for patients treated with extraction was the risk of impaction of those teeth (37.82%), whereas for orthodontists the major risk was resorption of second molars (41.17%). **Conclusion:** Premolar extraction before orthodontic treatment reduced the number of M3M extractions at the end of orthodontic treatment; however, despite considerable agreement on the prognosis of tooth eruption, orthodontists and OMFS cannot predict M3M eruption by using plain panoramic radiographs. Both recommended the surgical removal of a considerable number of M3Ms that erupted spontaneously and were asymptomatic.

Descritores:

Third molar; Tooth extraction; Orthodontist

FC 25

Código do trabalho: Abor 158

Autores:

RIBEIRO GLU*,ROCHA R,BARATIERI C,ANDRIANI JR W

EVALUATION OF DENTAL CHANGES IMMEDIATELY TO MAXILLARY EXPANSION WITH THE QUAD-HELIX APPLIANCE BY CONE-BEAM COMPUTED TOMO**Resumo:**

To evaluate immediate dental tip, height and thickness of alveolar molar region after maxillary expansion appliance with Quad-helix through Cone Beam Computed Tomography. The sample consisted of 24 patients who used the device Quad-helix activation with a 2mm monthly for 4 months, reaching 8mm expansion, with over two months of contention. Images of beam computed tomography (CBCT) were performed at baseline (T1) and after retention of two months (T2). Data were obtained through standardized method of image analysis and manipulated by the program OsiriX Medical Imaging Software 32-bit. The statistical test used to check if there were differences between the means was the "t" test for paired data. There was a mean reduction in alveolar bone thickness of 0,57mm and average vertical bone loss of 0,25mm. The inclination of the molars buccally occurred, with an average increase of 14o. The Quad-Helix was efficient, but showed bone loss that must be considered, stressing that it must control the buccal inclination of molars to obtain better result.

Descritores:

Palatal expansion technique; Cone-beam computed tomography; Alveolar bone loss

FC 26

Código do trabalho: Abor 169

Autores: BATISTA KBDSL**ORTHODONTIC TREATMENT FOR PROMINENT UPPER FRONT TEETH (CLASS II MALOCCLUSION) IN CHILDREN****Resumo:**

Objectives: To assess the effects of orthodontic treatment for prominent upper front teeth initiated when children are seven to 11 years old ('early treatment') compared to when they are in early adolescence ('late treatment'), and to compare the effects of different types of orthodontic braces. **Search methods:** Cochrane Oral Health's Information Specialist searched the following the relevant databases. **Selection criteria:** Randomised controlled trials of children and/or adolescents (age < 16 years) on early treatment (either one- or two-phase) with any type of orthodontic braces or head-braces. **Main results:** We included 24 studies based on data from 1040 participants. Early treatment with a functional appliance versus late treatment. At the end of treatment in both groups, there was no evidence of a difference in the overjet ($P = 0.18$), final ANB ($P = 0.92$), PAR score ($P = 0.34$) or self concept score ($P = 0.60$). However, two-phase treatment with functional appliance showed a statistically significant reduction in the incidence of incisal trauma ($P = 0.04$). Early treatment using head-gear versus late treatment. Significant differences in overjet and ANB were found in favour of headgear when the first phase of early treatment was compared with observation in the children due to receive treatment in adolescence. The incidence of incisal trauma was, however, statistically significantly reduced in the two-phase treatment group ($P = 0.009$). Different types of appliances for early treatment. At the end of the first phase of treatment statistically significant differences, in favour of functional appliances, were shown with respect to final overjet only. Late orthodontic treatment for adolescents with functional appliances versus no treatment. Statistically significant reduction in overjet of -4.23 mm ($P < 0.00001$) and ANB of -1.75° ($P < 0.00001$) were found in favour of functional appliances. **Authors' conclusions:** The evidence suggests that providing early orthodontic treatment for children with prominent upper front teeth is more effective in reducing the incidence of incisal trauma than providing one course of orthodontic treatment when the child is in adolescence. Additionally, treatment with functional appliances in adolescence is more effective in reducing overjet than no treatment.

Descritores:

Orthodontic appliances; Orthopedic functional appliances; Class II malocclusion

FC 27

Código do trabalho: Abor 172

Autores:

SENA NJC*, MORAIS WA, FECHINE PBA, CUNHA FA, FEITOSA VP, SABÓIA VPA

PHYSICOCHEMICAL AND MICROBIOLOGICAL ASSESSMENT OF AN ORTHODONTIC RESIN DOPED WITH SILVER/CALCIUM PHOSPHATE NANOPARTICLES**Resumo:**

The aim of this study was to assess physicochemical properties, enamel strength and antibacterial effect of an orthodontic resin (OR) incorporated with silver nanoparticles (AgNPs) with or without calcium phosphate (CaP). Methods: ORs were prepared with 0,1 or 5 wt% of AgNP and 0,1 or 5 wt% AgNP and CaP. Physicochemical properties were evaluated in terms of degree of conversion (DC), water sorption (WS) and solubility (SO), three point bending (flexural strength, FS and modulus, E), surface roughness (Ra) and Knoop microhardness (KHN). Enamel adhesion was evaluated by shear bond strength test (SBS). Resin's antimicrobial activity against *Streptococcus mutans* was measured by counting colony-forming units. The data were statistically analyzed by one-way ANOVA and Tukey's test ($p < 0.05$). Results showed that the DC, FS, KHN, SBS and antimicrobial tests showed no statistical difference between control and experimental groups. WS value decreased in OR 1wt% AgNP and SO value also decrease in OR 5wt% AgNP. FS achieved higher result in OR 5wt% AgNP. OR 1wt% and 5wt% AgNP and 5wt% AgNP with CaP attained statistically lower roughness than OR. Significance: The incorporation of AgNP in OR alters some physical-chemical properties, but does not interfere on its adhesion to the enamel. The use of CaP associated with AgNP might induce minor changes on physicochemical properties of the material.

Descritores:

Nanoparticles; Dental Bonding ; Anti-Bacterial Agents

FC 28

Código do trabalho: Abor 176

Autores:

MORDENTE CM*, HOUARA RG, PAIVA SM, OLIVEIRA DD.

PATIENTS'S PERCEPTION OF PAIN WITH PIEZOCISION AND ALVEOLAR CORTICOTOMY ASSOCIATED WITH ORTHODONTIC TREATMENT: A RANDOMI**Resumo:**

Objective: Evaluate the level of pain perceived by individuals undergoing orthodontic treatment associated with procedures to accelerate the orthodontic tooth movement: piezocision (PI) and alveolar corticotomy (AC). **Methods:** A total of 31 individuals (15 to 38 years old) that needed orthodontic treatment with extraction of the first maxillary bicuspids were randomly distributed in 3 groups in this split mouth study: (G1) 11 individuals submitted to piezocision in one side of the maxilla; (G2) 11 individuals submitted to CA in one side of the maxilla; (G3): 9 individuals submitted to PI in one side of the maxilla and CA in the other side. Pain assessment was carried out by means of the Visual Analogue Scale at (T1) 7 days after extractions; (T2) 7 days after separation; (T3) 7 days after mini screw insertion; (T4) 24 hours after PI and CA; (T5) 7 days after PI and CA. **Results:** In G1 and G2, there were no significant difference between PI and CA over the study period. For G1 (control side), the scores at T1 were significantly higher than T4 and T5. The scores at T5 were significantly lower than T2 and T3. In G2 (control side) it was found the same results from G1, but the scores at T4 were significantly lower than at T2 and T3. For the PI and CA sides of G3, the scores at T2 were significantly higher than T5. **Conclusion:** The level of pain perceived with PI and CA is similar to the level of pain of routine procedures of an orthodontic treatment, as extractions and mini screws. The separators stimulated higher level of pain than PI and CA

Descritores:

Orthodontics, Corrective; Tooth Extration; Tooth Movement

FC 29

Código do trabalho: Abor 185

Autores:

PALOMARES NB*, FEU D, OLIVEIRA BH, MIGUEL JAM.

QUALITY OF LIFE IN CLASS III PATIENTS TREATED WITH THE SURGERY-FIRST APPROACH**Resumo:**

This prospective longitudinal study evaluated the effect of the surgery-first approach on skeletal Class III patients' oral health-related quality of life. Sixteen patients with Angle Class III malocclusion, ANB < 0°, concave profile and negative overjet who needed 2-jaw orthognathic surgery were included: 8 treated with the surgery-first approach, and 8 with the traditional approach. The oral health-related quality of life was assessed by using the Orthognathic Quality of Life Questionnaire (OQLQ) and the Oral Health Impact Profile - short version (OHIP-14). Malocclusion severity and esthetic self-perception were assessed with the Index of Orthodontic Treatment Need. Tests were repeated at 6 times: baseline, 1 month, 3 months, 6 months, 1 year and 2 years after the beginning of the treatment. After 2 years, the surgery-first group showed a significant decrease in malocclusion severity ($p < 0.001$) and improvement of quality of life, with progressive reduction in OQLQ ($p < 0.001$) and OHIP-14 scores ($p < 0.001$). Nevertheless, after 2 years, all patients in the traditional approach group were still in the preoperative orthodontic phase, with increased malocclusion severity, thereby resulting in a not statistically significant worsening of their OHRQoL (OHIP-14, $p = 0.89$; OQLQ, $p = 0.11$). It can be concluded that OHRQoL, malocclusion severity and esthetic self-perception significantly and progressively improved in all Class III patients treated with the surgery-first approach, through 2 years of follow-up.

Descritores:

Quality of Life; Orthognathic Surgery; Malocclusion, Angle Class III

FC 30

Código do trabalho: 186

Autores:**INFRAZYGOMATIC CREST BONE THICKNESS OF GROWING INDIVIDUALS: TOMOGRAPHIC STUDY****Resumo:**

The purpose of this study was to assess infrazygomatic crest bone thickness in growing patients, aiming at the installation of orthodontic miniplates. Linear measures were performed on coronal tomographic slices in the region between the 2nd premolar or the 2nd deciduous molar and the 1st permanent molar, at both sides, of cone-beam computed tomography exams from 43 individuals. Images were exported to Dolphin Imaging version 11.5 Premium software and three measures were performed: the first one, in the intersection of the alveolar process with the beginning of the IZC, using as reference a line perpendicular to the axial plane, and the following two measures were taken 4mm and 8mm, respectively, distant from the first one, parallel to it. After statistical treatment, the value found for the median of the IZC thickness was 2,38mm. There was no statistically significant difference between genders ($p>0.05$), however, there was a slight tendency of greater bone thickness values of the IZC as age increases (0,315; $p=0,040$). Vertically, the lower region of the IZC was thicker than the upper ones ($p=0,000$). When comparing the 5mm microscrew with the IZC measurements, they were significantly smaller ($p=0,000$). In conclusion, there is no gender related differences on the thickness of IZC; lower region showed greater bone thickness; and a very early age seem to be related to smaller bone thickness, thus to a higher risk of perforating maxillary sinus when using traditional microscrews.

Descritores:

Zygoma; Cone-beam Computed Tomography; Orthodontic Anchorage Procedures

FC 31

Código do trabalho: Abor 190

Auotres:

AGUIAR MCS*, PEREIRA ABN, PALOMARES NB, CAPELLI JR J

THE GINGIVAL CREVICULAR FLUID AS AN ASSESSMENT'S METHOD OF ORTHODONTIC MOVEMENT RESPONSE IN JUVENILE PATIENTS**Resumo:**

The gingival crevicular fluid (GCF) is a biologic exsudate and the quantification of its constituents is a current method to identify specific biomarkers for several biological events, as the orthodontic movement. The aim of this literature review was to analyze the available evidence about the monitoring of tooth movement through GCF's biomarkers in juvenile and adult patients. The research of published articles between 1963 and 2017 was made at Pubmed, Cochrane and Medline databases. In vitro and controlled and/or randomized clinical trials done were included. The included thirty-nine studies (23 randomized clinical trials, 12 controlled and 4 in vitro) analyzed the GCF's biomarkers during the orthodontic movement, which 8 of them found different biomarkers's expressions according to age, which results in different rates of tooth movement. It was detected a greater biomarkers of bone resorption (IL-1, IL- 6 and PGE2) and mineralization (alkaline phosphatase) expressions in juvenile patients (7 to 18 years old), which corroborates the clinical experience of a greater rate of orthodontic movement in this age range. However, the current scientific evidence is still scarce about the influence of age in some biomarkers of tooth movement. The clinical applicability of the gingival crevicular fluid assessment with this purpose is still limited, with more studies being necessary to reach a complete diagnostic purpose of specific GCF's biomarkers to Orthodontics.

Descritores:

Gingival Crevicular Fluid; Orthodontic Movement; Biomarkers

FC 32

Código do trabalho: Abor 215

Autores:

FERREIRA DP; DOMINGEZ GC, FERREIRA DP; DOMINGEZ GC

EVALUATION OF THE INFLUENCE OF PHOTOBIMODULATION ON THE SPEED OF ORTHODONTIC TOOTH MOVEMENT**Resumo:**

Currently the search for shorter orthodontic treatment time has been motivation for research. In order to evaluate the rate of orthodontic tooth movement during the retraction phase in patients treated with extraction of the first premolars, 18 patients between 13 and 18 years old were selected sequentially in two groups: GLED composed of ten patients (5H) , 5M) who underwent self-application with LED device for 10 minutes daily during the orthodontic retraction phase for a period of 12 weeks and CG, composed of eight patients (4H, 4M) who did not apply the LED. The closure of the spaces was obtained with sliding mechanics with 0.019 "x 0.025" steel arches and NiTi springs with 200g of force, activated every 4 weeks. In total, 20 upper quadrants and 16 lower quadrants were evaluated in the GLED and 16 upper quadrants and 12 lower quadrants in the CG. Skeletal anchorage was performed only on the upper arch. A single operator performed clinical measurements and in study models, with dry-point compass and modified digital caliper, considering four variables. With the results obtained it was observed that there was no statistically significant difference between the groups, however a significant reduction of the spaces over time was observed in both groups, both of the upper and lower arch. It was concluded that phototherapy with the LED application protocol used did not differentially characterize the groups studied.

Descritores:

Orthodontic Movement; LED; Phototerapy

FC 33

Código do trabalho: Abor 225

Autores:

LIMA TA*, BATISTA KBLS, GOLDNER MTA, QUINTÃO CCA

THREE-DIMENSIONAL MANDIBULAR DENTO-SKELETAL CHANGES RESULTING FROM TREATMENT WITH HERBST AND TWIN BLOCK APPLIANCES**Resumo:**

The objective of this study was to evaluate mandibular dento-skeletal changes in Class II patients treated with Herbst and Twin Block appliances. The sample consisted of 2 groups: Twin Block (TB) with 9 boys and 6 girls, treated with Twin Block appliance and Herbst (HB) with 4 boys and 3 girls, treated with Herbst appliance, all with Angle Class II malocclusion, 1st division, at the peak of pubertal growth spurt. The three-dimensional virtual models of the mandible obtained through cone beam computed tomography of all patients in T1 (before treatment) and T2 (after 12 months) were superimposed to evaluate the condyles, mandibular ramus and body and lower central incisors. The measurements obtained were evaluated by the Mann-Whitney and Wilcoxon tests. There were no differences between the groups for all regions analyzed ($p < 0.05$). Both groups presented the most pronounced growth in condylar areas (right condyle = 6.12 mm in group TB and 7.01 mm in group HB; left condyle = 6.34 mm in group TB and 6.84 mm in group HB); small growth of the mandibular ramus (right ramus = 1.80 mm in group TB and 1.65 mm in group HB; left ramus = 1.86 mm in group TB and 1.66 mm in group HB); and the mandibular corpus showed the minor growth (0.54 mm both in groups TB and HB). The lower incisors presented a similar proclination in both groups (teeth 31 = 1.37 mm in group TB and 1.67 mm in group HB; teeth 41 = 1.34 mm in group TB and 1.5 mm in group HB). It can be concluded that patients treated with the Twin Block and Herbst appliances presented similar results concerning mandibular growth and lower incisor proclination.

Descritores:

Class II Malocclusion; Mandible; Growth

FC 34

Código do trabalho: Abor 232

Autores:

SIMÕES D*, CATHARINO F, ARAÚJO TMA.

RELATIONSHIP OF DENTAL ARCH DIMENSIONS WITH THE FACIAL TYPE**Resumo:**

The assumption that the dental arch shape corresponds with the facial morphology is controversial in Orthodontics. Therefore, the purpose of this study was to evaluate the degree of association between the lower arch dimensions and the different facial patterns. Fifty one human dry skulls with normal occlusion and different facial patterns were scanned with CT scan and their respective mandibles scanned in laser scanner. Skulls were categorized into three groups according to the Facial Index (IF) and the FMA angle, while the following measurements were performed in 3D representative models of mandibles: Inter canine distance (DC), Intermolar distance (DM), Arch depth (PA) and the Height/Width Ratio (PAL) were calculated. For the comparison between the groups the variance analysis was used with one criterion (ANOVA one way) and to assess the association degree between the facial pattern and the mandibular arch morphology, the Pearson correlation coefficient was applied. Statistically significant correlation was found between the GoGn-SN angle and DM. No statistically significant differences were found between the assessed groups. The mandibular arch morphology is not associated with the facial pattern, although some influence can be observed in its posterior region. Therefore, it is prudent to follow the original conformations of the patient arch during the orthodontic treatment.

Descritores:

Dental arch; Facial bones; Tomography

FC 35

Código do trabalho: Abor 252

Autores:

CAMPOS FS*, VILANI PNL, MAGALHÃES JÚNIOR PAA, OLIVEIRA DD

SEGMENTED LOOPS FOR THE UPRIGHTING OF INFERIOR MOLARS: A COMPARISON THROUGH THE FINITE ELEMENT METHOD

Resumo:

Orthodontists who treat adult patients routinely find excessive mesial inclination of permanent molars due to early loss of posterior teeth. The best clinical approach to upright mesio-inclined permanent molars in a controlled manner is a clinical challenge for orthodontists around the world. The objective of this study was to evaluate the mechanical effects of two segmented loops for the uprighting of inferior molars: Cantilever of the Segmented Arch Technique (CSAT) and the Sander Spring (SS). Three finite element models (FEM) were constructed. The LR6 was removed and the LR7 was mesio-inclined 30° in relation to the bone base. Modeling adjustments, springs and orthodontic accessories were executed by the SolidWorks® program. In FEM 1, the CSAT was simulated; in the FEM 2, the SS with 45° activation; and in the FEM 3, the SS with 90° activation. Mesh fabrication and simulations were executed with the Ansys Workbench® 17.0 program. The simulations showed that in all mechanics tested, there was a tendency of molar uprighting with distal crown movement, but undesirable effects were observed in this tooth and/or in the anchorage unit. FEMs 1 and 3 showed an extrusive tendency and lingual inclination of the molar. FEM 2 showed a tendency of uprighting with intrusion and without buccal-lingual inclination. Side effects of anchorage were more evident in FEM 2 and less in FEM 3. In conclusion, SS with 45° of activation was more effective in the molar uprighting, however an attempt to minimize undesirable effects in the anchor unit should be done.

Descritores:

Tooth Movement Techniques; Finite Element Analysis; Molar

FC 36

Código do trabalho: Abor 255

Autores:

SOARES, LGP*; FIGUEIRA, IZ; PINHEIRO, ALB; HABIB, FAL.

LED PHOTOTHERAPY FOR PAIN CONTROL IN ORTHODONTICS**Resumo:**

Pain is an unpleasant subjective sensory experience that occurs during orthodontic procedures and may discourage continuity of treatment. Nowadays, LED phototherapy is an alternative to the use of laser as an analgesic agent due to similarity of response and lower cost. This case-control, quantitative, qualitative and longitudinal study aimed to investigate the effect of infrared LED phototherapy ($\lambda 846 \pm 10$ nm) on pain control in the dental separation process with elastics during orthodontic treatment. Forty three patients, which filled the inclusion criteria, were randomly divided into two groups (LED and Control). LED group received phototherapy (180 mW, 22 s, 4 J, 8 J/cm², 0.36 W / cm², spot = 0.5 cm²) immediately, 48, 96 hours and 7 days after insertion of the elastics separators; the patients in the control group were not irradiated. The pain was measured by visual analogue scales (VAS) in the same periods as the irradiation protocol was performed. It was found that in both groups, there was an increase in pain 48 hours after the insertion of the separators, which decreased 72 hours and reached the lowest level after seven days. Comparing the groups, the pain levels in the LED group were always lower, being statistically significant ($p < 0.05$), except for the time of installation (T1), in relation to the Control group. Therefore, phototherapy was effective in significantly reducing the painful experience of patients undergoing orthodontic treatment, after insertion of elastic separators.

Descritores:

Orthodontics; Fototerapia

FC 37

Código do trabalho: Abor 257

Autores:

PRISCILA VAZ AYUB, STEPHEN YEN, DIRCEU BERNABE RAVELLI, DANIELA GAMBA GARIB

INTERCENTER COMPARISON OF SLOW AND RAPID MAXILLARY EXPANSION IN COMPLETE CLEFT LIP AND PALATE**Resumo:**

Objective: The aim of this study was to compare the occlusal changes of rapid and slow maxillary expansion in patients with unilateral complete cleft lip and palate by means of digital dental models. **Methods:** The sample was composed by patients from two Rehabilitation Centers. Group SME composed by 29 patients (mean age 10.7 year) treated with slow expansion with quad-helix appliance in Center 1. Group RME was composed by 22 patients (mean age 9.9 years) treated with rapid expansion with Hyrax appliance in Center 2. Inter canine expansion was approximately 5mm in both groups. Digital dental models were obtained immediately pre-expansion (T1) and 6-month post-expansion (T2). Posterior tooth inclination, transversal widths, arch perimeter and length, palatal depth and volume were digitally measured. Interphase and intergroup comparisons were performed with Paired t-test and independent t-test ($p < 0.05$). **Results:** While intercanine distance increase was similar for both group, RME group showed a greater increase in arch widths at the region of premolar and permanent molars. Arch perimeter increase was greater for RME group compared to SE. No differences were found for arch length, palatal depth, palatal volume and posterior tooth buccal tipping. **Conclusion:** Dentoalveolar effects of SME and RME are similar except for the differential expansion potential of SME and a shorter expansion time for RME. Overexpansion of the maxillary first molars was observed in the RME group.

Descritores:

Maxillary expansion; Cleft lip and palate; Digital models

FC 38

Código do trabalho: Abor 032

Autores:

LADEWIG VL*; CAPELOZZA-FILHO L; ALMEIDA-PEDRIN RR; CONTI ACCF

EVALUATION OF PALATINE SUTURE MATURATION BY MEANS OF CT SCANS IN POST-PEAK GROWTH INDIVIDUALS**Resumo:**

Introduction: This study aimed at evaluating the maturation stage of the midpalatal suture based on its morphology, using cone-beam computed tomography (CBCT) images in young post-adolescents individuals. The sample of this study comprised 112 patients, 68 females and 44 males, aged 16 to 20 years, consecutively selected in two private orthodontic clinics. The patients selected presented CBCT images in their initial orthodontic documentation, requested for orthodontic planning purposes. These images were exported to the Invivo5 program, where axial sections were obtained from the midpalatal suture for morphological evaluation. Two previously calibrated examiners interpreted the images in order to establish the stage of sutural maturation of each patient according to its morphological characteristics in 5 different maturational stages (stages A, B, C, D and E). The Kappa coefficient was applied for intra- and inter-examiner agreements and their values were 0.87 and 0.89, respectively. The significance level adopted was 0.05% for the statistical tests. The maturational stages most observed in this study were C, D and E, (91.9%). In males, stage C was present in 52.3%, and for females this prevalence was 39.7%. The high prevalence of stage C in this age group may justify a clinical study to confirm the good prognosis for rapid maxillary expansion in post-adolescents individuals.

Descritores:

Cranial Sutures; Hard Palate; Maxillary; Palatal Expansion Technique

FC 39

Código do trabalho: Abor 272

Autores:

KARAM LCG*, MENESES ATR, BRAGA E, ARAUJO TM

EVALUATION OF THE ACCURACY OF DENTAL MEASUREMENTS OBTAINED IN 2D PRINTING OF DIGITIZED PLASTER DENTAL CASTS**Resumo:**

The objective of this study was to evaluate the fidelity of the printed image, obtained from a digital model. Measurements of intercanine, intermolar and inferior arch lengths were performed in 37 plaster dental casts, scanned with Ortho Insight 3D scanner and printed on A4 paper. No statistically significant differences were noted regarding the measurements performed on the plaster or digital models ($p>0.05$). Paper print images, however, showed sub estimated values for intercanine and intermolar width and over estimated value for dental arch length. Despite being statistically significant ($p<0.001$), the differences were considered clinically negligible. The present study suggests that paper print images obtained from digital models are clinically accurate and can be used as a tool for dental arch form assessment for fabrication of individualized orthodontic archwires.

Descritores:

Dental models; Tridimensional image; Dental arch

FC 40

Código do trabalho: Abor 276

Autores:

ROSAR JP*, ARTESE FRG, CAETANO S

PERCEPTION OF FACIAL AESTHETICS OF SIMULATED LIP BIPROTRUSIONS IN FRONTAL EVALUATION**Resumo:**

The objective of this study is to determine the perception of facial aesthetics in different degrees of simulated lip biprotrusion in frontal face evaluation by orthodontists, dental surgeons specialized in oral rehabilitation and laypersons, to compare the results of frontal with lateral evaluations and to describe the emotion transmitted in each image of simulated biprotrusion. For this study two young adults were selected, one woman and one man, study models of each individual and sequential setups with projection of anterior teeth were made, as well as acetate plates simulating 1, 2 and 3 mm protrusion. Frontal and lateral facial photographs of individuals were obtained without any intervention and with each of the three plates. An online questionnaire was developed, in which the evaluators judged the aesthetic perception of the face by assigning an evaluation on a visual analogue scale. In the frontal view the evaluator also selected which emotion the image expressed, with the following options: joy, neutral, sadness or anger. Descriptive statistical analysis, comparison and correlation tests were performed. The simulated lip biprotrusion had an impact on the aesthetic perception of the face in the frontal and lateral evaluations. The images simulating the highest degrees of biprotrusion were evaluated with the worse aesthetic perception in both frontal and lateral views. A higher frequency of anger was observed with the increase of the degree of protrusion. The impact of bimaxillary protrusion on the perception of facial aesthetics was greater in the frontal view than in the lateral view

Descritores:

Aesthetics; Face; Perception

FC 41

Código do trabalho: Abor 281

Autores:

OMAR GABRIEL SILVA FILHO; MARGARETH MARIA GOMES DE SOUZA

PERIODONTAL CONDITION OF ECTOPIC UPPER CANINE BY VESTIBULAR AFTER ORTHODONTIC TREATMENT WITH AND WITHOUT EXTRACTION**Resumo:**

Objective: The aim of the present study was to evaluate the individual periodontal status (IPS) of ectopic permanent maxillary canines (PMC) due to lack of space, orthodontically treated with (WE) and without (WOE). **Materials and Methods:** To define the IPS of the selected teeth, the position of the buccal bone crest (PBC) and the position of the marginal gingiva (PMG) were evaluated by tomography. The WE group consisted of 16 patients (3 males, 13 females), who had unilateral ectopy of PMC, 16 being n in that group. The 16 contralateral PMC constituted the control group (C). The WOE group was composed of 08 patients (2 men and 6 women), all with bilateral ectopia, making a total of 16 PMC. **Results:** Both in the WE and WOE groups, the oral ectopic canines after orthodontic treatment had a statistically significant difference ($P < 0.05$) in the IPS, in relation to the control group. There was also a statistically significant difference ($P < 0.05$) in IPS between the WE and WOE groups. **Conclusions:** The IPS in the post-treatment of PMC in both groups was in doubtful average. However, in the WOE group the IPS was worse. Thus, early treatment with the purpose of avoiding ectopy, the best solution to have a good IPS

Descritores:

Orthodontics; Tomography; periodontium

FC 42

Código do trabalho: Abor 055

Autores:

SALGADO KR*, WENDT AR, FAGUNDES NCF, NORMANDO ADC, MAIA LC, LEÃO PB.

TIMING OF PALATOPLASTY IN UNILATERAL CLEFT LIP AND PALATE AND THE MAXILLARY EFFECTS: A SYSTEMATIC REVIEW**Resumo:**

The aim of this study was evaluate the effects of early palatoplasty (untill 17 months) and later palatoplasty (after 18 months) on maxillary morphology. PUBMED, Scopus, Web Of Science, LILACS, The Cochrane library, CENTRAL, Open Grey, Google Scholar and Clinical Trials databases were performed through the PICO strategy, with terms related to UCLP (Unilateral Cleft Lip and Palate) and timing repair. The data were extracted by two authors and a third one in conflict cases. At the end it were selected four restrospective and non-randomized studies according to the inclusions criteria, which were submitted to a qualitative analysis. In the qualitative analysis all them showed low levels of scientific evidence and controversies in the comparison in the timing repair of hard palate in UCLP patients. Two studies showed better results in the later group, one presented no differences between the groups and another one showed better results in the earlier group. It is suggested that from the limitations of the primary studies, there seems to show no differences in the timing for the hard palate repair. However, another factors can influence in the surgeon and parents decision, as: functional, aesthetics, psychosocial issues and the speech development. Clinical trials with tough methodological control and long-term follow-up for growth assessment, exceeding the pubertal spurt, are necessary to provide solid evidence for the timing repair of these patients.

Descritores:

Orofacial cleft; Maxilla/ growth and development; Age factors

FC 43

Código do trabalho: Abor 237

Autores:

CAMARDELLA LT, SÁ MSB, GUIMARÃES LC, VILELLA OV.

AGREEMENT IN THE USE OF PREFORMED WIRE SHAPE TEMPLATES ON PLASTER MODELS AND CUSTOMIZED DIGITAL ARCH FORM DIAGRAMS**Resumo:**

The aim was to verify the accuracy of preformed wire shape templates on plaster models and customized digital arch form diagrams on digital models. Twenty pairs of dental plaster models were randomly selected from the archives *** and were scanned to create the respective digital models. Three examiners defined the arch form on the mandibular arch by selecting the ideal preformed wire shape template on each plaster model or by making a customized digital arch form on the digital models using a software tool. These two arch forms were superimposed by the best-fit method. The largest differences in six predefined different regions on the superimposed arches were evaluated. A descriptive analysis with the mean, standard deviation, and minimum and maximum intervals of the differences on the superimpositions were presented. Intraclass correlation coefficient (ICC) and paired t test were used to evaluate the accuracy of the superimpositions. Among the six regions analyzed in the superimpositions, the largest differences in the anterior and premolar regions were considered clinically insignificant, whereas the largest differences in the right molar region, especially the second molar area, were considered clinically significant by all three examiners. ICC showed weak correlation in the premolar region and moderate correlation in the anterior and molar regions. The paired t test presented statistically significant differences in the left anterior and premolar regions. The superimpositions between the arch forms on plaster and digital models were considered accurate, and the differences were not clinically significant, with exception of the second molar area.

Descritores:

Dental models; Dental arch; Data accuracy

RESUMOS TEMAS LIVRES

TL 02

Código do trabalho: Abor 024

Autores:

BRITO GM*, OLIVEIRA RLB

MALOCCLUSION AND TOOTH ABNORMALITIES IN INDIVIDUALS WITH OROFACIAL CLEFT

Resumo:

The primary correction surgeries of the Orofacial Cleft (OC) interfere in the facial and upper tooth arch growth, resulting in retrognosis and maxillary atresia. In addition, an unfavorable maxillo-mandibular diagnosis is suggested, causing several malocclusions. Thus, the objective of this study is to do a literature review to identify the main malocclusion and dental abnormalities in individuals with orofacial cleft, in addition, a serial cases description will be done. For this purpose, a bibliographic survey was carried out by consulting the main databases: PubMed, Lilacs and Scielo, using the keywords: Cleft Lip, Palate Cleft, Tooth Abnormalities. In the end of the study, we conclude that the dental anomalies are a common finding in person with orofacial fissures. The abnormal size and morphology of the teeth are the abnormalities more prevalent. Microdontia has been reported frequently in individual with OC unilateral or bilateral, but the size of the teeth in people with palate isolated cleft seems to be normal. It is concluded that the tooth anomalies can be a complicating factors for the orthodontic treatment and a detailed analysis to determine the existence of anomalies it is necessary before the beginning of orthodontic correction.

Descritores:

Cleft Lip; Palate Cleft; Tooth Abnormalities

TL 03

Código do trabalho: Abor 028

Autores:

MAAHS MAP*, MAAHS GS, MAAHS TP

RAPID SURGICALLY ASSISTED MAXILLARY EXPANSION AS A COMPLEMENT IN THE TREATMENT OF SEVERE OSAHS IN ADULTS**Resumo:**

Obstructive sleep apnea syndrome (OSAHS) is diagnosed by polysomnography and has a multifactorial etiology due to anatomic alterations of the upper airway, neuromuscular pharynx and craniofacial skeleton, such as transverse maxillary atresia. This reduces retroglossal air space due to postural alteration of the tongue. Therefore, rapid expansion of the surgically assisted maxilla (ERMCA) may be part of the treatment of OSAHS, as it leads to a decrease in the resistance of the upper airways by increasing the nasal volume and indirectly expanding the oropharynx due to a change in the lingual posture. RSAME favors repositioning of the soft palate when spontaneous anterior mandibular displacement occurs. RSAME, septum surgery and bilateral inferior turbinoplasty were performed in a male patient at 38 years and 11 months, with oral breathing, snoring and severe apnea (AHI = 33). Among dentofacial alterations, it had maxillomandibular prognathism, dental biprotrusion, convex profile, severe transverse maxillary atresia, Angle Class III, upper and lower crowding, bilateral posterior crossbite and anterior top bite. Post ESAME used fixed upper and lower appliances and bilateral vertical elastics, and in the orthodontic finishing phase, moderate apnea (AHI = 24) was recorded. Uses fixed upper and lower 3 to 3 retainers, night upper removable retainer and CPAP. There is indication of lateral pharyngoplasty in order to further decrease AHI. The result obtained points to ESAME as a complement in the treatment of OSAHS.

Descritores:

Maxillary expansion; orthognathic surgery; obstructive sleep apnea

TL 04

Código do trabalho: Abor 029

Autores:

PINHEIRO DD*, PINZAN-VERCELINO CRM, GURGEL JA, GURGEL LAKM

CORRECTION OF CLASS II MALOCCLUSION, DIVISION 2 THROUGH MINISCREW ASSOCIATED TO HOOK BY PALATINE**Resumo:**

The use of skeletal anchorage devices such as orthodontic miniscrews has an important orthodontic treatment option because it reduces unwanted tooth movement and do not require cooperation of patients. For be versatile, minimally invasive, easy placement and removal, these miniscrews are increasingly used in combination with distal movement devices. The objective of this study was to report a clinical case of a 13 year old patient with unilateral posterior crossbite and Class II malocclusion, division I, subdivision left. The treatment was performed through the mechanics of distalization of molars by miniscrew in the palate associated to a hook, miniscrews located on the buccal side were used to anchor the anterior region during distalization and in the retraction of the anterior segment. At the end of the treatment, it was obtained a class I molar relationship, correction of dental asymmetry and midline correction. It can be concluded that the versatility of the orthodontic mini-implant allows the correction of malocclusions at different levels of complexity.

Descritores:

Angle Class II; Orthodontic Anchorage Procedures; Palate

TL 05

Código do trabalho: Abor 31

Autores:

AQUINO ERB*, BASTING RT

AUTOPERCEPTION AND PERCEPTION OF ORTHODONTICS AND LAY PEOPLE IN RELATION TO DIFFERENT MANDIBULAR ADVANCEMENTS USING 3D I**Resumo:**

This study evaluated the self-perception of patients and the perception of orthodontists and laypeople regarding the aesthetic pleasantness of the face with different mandibular advancements using 3D images, obtained from 8 patients with occlusion and normal facial relations in the anteroposterior direction, in 4 different mandibular positions : The first in MIH, followed by 2 mm, 4 mm and 6 mm of mandibular advancement. The images were obtained in PNC, 4 male patients and 4 female patients, being evaluated by 60 individuals, 30 of whom were lay (non-professionals in the Dentistry area) and 30 orthodontists. The 8 patients performed the self-evaluation of the images. The results showed that for males, the scores given by orthodontists were significantly lower than those of the laymen and the self-assessments of the patients. For females, the orthodontist's scores were significantly lower than those of the laymen, but did not differ significantly from the self-assessments of the patients. In the self-assessments, the advances of 4 and 6 mm were considered more unpleasant by the female sex compared to the male gender. Orthodontists are more critical with respect to mandibular advancement when compared to laymen, assigning smaller notes for facial enjoyability in all positions evaluated. Mandibular advancements of 2 mm do not negatively influence the evaluation of orthodontists, laymen and even the self-assessment of the patients. The laymen were more critical with females and 50% of males self-assessed pleasant up to 6 mm.

Descritores:

Esthetics; Mandibular advancement; Three-dimensional Images

Fonte: Comitê de Ética em Pesquisa sob número CAAE 53359316.7.0000.5374

TL 06

Código do trabalho: Abor 049

Autores:

SILVA LLS*, RIBEIRO DPB

FACIAL ASYMMETRY: ORTHOGNATHIC SURGERY OR MULTIDISCIPLINARY APPROACH? REPORT OF CLINICAL CASES**Resumo:**

This study aims to demonstrate the importance of facial analysis during diagnosis and treatment plan of facial asymmetry. Patient P.C., female, 15 years old, leukoderma, Angle Class I, protrusion of maxillary incisors and diastema between 11 and 21. Facial analysis: passive labial sealing; parallel labial commissures; mild asymmetry between homologous facial structures without aesthetic impairment of soft tissues. Smile analysis: Excessive gingival exposure, inclination of the smile line in relation to the upper lip, inclination of the frontal plane of the jaw and smile arch in relation to other structures. Treatment: space closure; correction of the protrusion of incisors; gingivoplasty associated with osteotomy and confection of minimally invasive veneers. Case 2: BSP, female, 15 years old, with Angle Class I, low self-esteem. Facial analysis: absence of lip sealing; inclination of the frontal plane of the maxilla; asymmetry of labial commissures in relation to the horizontal plane. Treatment: orthognathic surgery consisting of a maxillary advancement with correction of unevenness (cant), mandible osteotomy to correct asymmetry associated with advancement mentoplasty. The cases completed, after a follow-up of 2 years (case 1) and 1 year (case 2), present themselves as stable and an excellent aesthetic result. Facial analysis is a fundamental part of orthodontic diagnosis in different clinical procedures adopted, as well as interdisciplinary communication tool.

Descritores:

Facial asymmetry; facial analysis; orthognathic surgery

TL 07

Código do trabalho: Abor 063

Autores:

COPELLO FDM*

IMPACTED DILACERATED MAXILLARY CENTRAL INCISOR TREATED WITH A MODIFIED HAAS APPLIANCE AND ORTHODONTICALLY INDUCED ERUPTION.**Resumo:**

Dental trauma is a significant problem that may have serious medical, esthetic and psychological consequences on both children and their parents. The maxillary central incisors are the third most commonly impacted teeth, preceded by the third molars and the maxillary canines. This case report presents the successful approach to treatment for a young girl who had an impacted dilacerated permanent maxillary central incisor associated with dental trauma history in primary dentition, unesthetic appearance and a psychologic compromise. On dental cast analysis, the arch length discrepancies were -10.9 mm in the maxilla and -2.3 mm in the mandible. Treatment consisted of maxillary rapid expansion with a modified Haas appliance to correct transversal discrepancy and open space to the impacted tooth, surgical exposure of tooth and orthodontically induced tooth eruption. Extraction of second premolars was performed and a fixed edgewise appliance was placed incrementally to correct the incisor relationships and finish the treatment. A normal occlusion and an adequate width of attached gingiva were achieved.

Descritores:

Impacted Tooth; Tooth Injuries ; Palatal Expansion Technique

TL 08

Código do trabalho: Abor 072

Autores:

JOÃO JOAQUIM FERREIRA NETO, JOHNNY HOLANDA DE GAUW

PROTOCOLS X METHOD FOR TREATMENT PLANNING**Resumo:**

The diagnosis and planning of orthodontic treatment should follow a logical sequence, presenting the problems and characteristics of the patient's malocclusion, and the objective solution to each problem. This should be done individually for every patient. Nevertheless, there is a current tendency to propose strict treatment protocols, where too much attention is granted to the details of the execution of a simplified biomechanical sequence of the treatment, that is, one prefers to describe archwires and devices to be used, instead of communicating and explaining the problems, priorities and objectives to be achieved for that specific case. In this presentation, the authors intend to describe a systematized method for the diagnosis of orthodontic problems, taking into account the different characteristics of malocclusion, followed by the establishment of treatment priorities and objectives to be achieved. We believe that, in this way, the solutions for every case (the treatment plan) should arise in a more logical manner, and eventual conflicts between antagonistic mechanics can be considered in advance.

Descritores:

Orthodontics; Diagnosis; Treatment plan

TL 09

Código do trabalho: Abor 080

Autores:

WILANA MOURA, DEBORAH BRINDEIRO DE ARAÚJO BRITO, PAULA COTRIN, JOSÉ FERNANDO CASTANHA HENRIQUES

ORTHOPEDIC TREATMENT OF A PATIENT WITH CLASS II MALOCCLUSION, ANTERIOR OPEN BITE AND VERTICAL GROWTH PATTERN**Resumo:**

Class II treatment should not be considered as a single entity. Individualized therapeutic goals according to facial pattern, face morphology and patient age should be elaborated. In the case of growing patients with vertical pattern and maxillary protrusion, the Thurow appliance presents great advantages because this device acts on the maxilla, helping to correct the maxillary protrusion and contributes to the control of vertical growth when used with high traction. In case report presented, the patient had a digital sucking habit and presented a convex profile, Class II malocclusion, overjet 9mm, vertical growth pattern, anterior open bite and absence of space for eruption of the upper lateral incisors. The case was initially treated with a fixed palatal crib for 3 months to aid in removal of the habit and correction of the anterior open bite, followed by the modified Thurow appliance with digital springs to open space and allow eruption of the upper lateral incisors. After 13 months of treatment, Class II malocclusion correction, normal overjet and overbite and erupted lateral incisors were observed, as well as improvement in the patient's facial profile. For retainer, a Bionator appliance was chosen to be used up to the 2 phase of fixed appliance treatment

Descritores:

Angle Classe II Malocclusion; Open Bite; Orthotic Devices

TL 10

Código do trabalho: Abor 087

Autores:

SIMÕES D*, BRITO GM, MACHADO AW

ORTHODONTIC MOLAR PROTRACTION: STEP-BY-STEP**Resumo:**

Due to the changing profile of patients searching for orthodontic treatment, there is a notable increase in the presence of adults and the elderly, making the treatment of patients with dental losses a reality commonly found in dental offices. There are multiple therapeutic possibilities among which the orthodontic closure of edentulous spaces represents a challenge for the orthodontist because of the mechanical and biological difficulties associated with this process. The purpose of this research is to report clinical situations of closing space through orthodontic movement for replacement of missing teeth, and establish a step-by-step guide to the orthodontist in the planning and execution of molar mesialization.

Descritores:

Orthodontics; Tooth loss; Malocclusion

TL 11

Código do trabalho: Abor 099

Aurores:

BIANCA BRAVIM, ROBERTO PRADO, SÉRGIO GONÇALVES

USE OF ANCHOR MINIPLACES FOR SKELETAL CLASS III CORRECTION**Resumo:**

The skeletal anchors comprise one of the great technological advances in orthodontics. They allowed by obtaining a fixed point in the skeleton that orthodontic treatments of difficult predictability, with great duration of time and even dentofacial deformities could be treated with a less time of treatment and orthognathic surgeries were avoided. Our study reports a case of a 13-year-old male patient who had a skeletal class III with an overbite to the point where we did not observe the patient's upper anterior teeth. It was planned to install four miniplates in the bilateral zygomatic-maxillary ridge region and between the first premolars and lower canines under local anesthesia and immediately initiated maxillary traction. A disocclusion plate was also made for the patient, allowing anteroposterior traction of the maxilla. After two months of the installation of the miniplates and beginning of the traction, we can observe a top occlusion of the patient with uncrossing of the anterior bite. Patient is in conventional orthodontic treatment and we currently believe that there is no need for orthognathic surgery.

Descritores:

Orthodontic anchorage; Class III; orthognathic surgery

TL 12

Código do trabalho: Abor 107

Autores:

VOSS D*, OLIVEIRA MCL, CARNEIRO JC, PEREIRA GO.

ORTHOGNATHIC SURGERY OF FIRST APPROUCH USING CUSTOM-MADE MINIPLATES: FROM THE PLANNING TO THE FIRST 4 MONTHS**Resumo:**

With orthognathic surgery of first-approach we were able to correct the asymmetries and the relationships between the dental arches of the patient without the need for an orthodontic treatment previously to surgery, which could be started 5 days later, using the advantage of the accelerating effect of the movement. A complex and well executed treatment plan with virtual planning and interaction with surgeon, orthodontist and patient are required. The guides and custom mini plates facilitate surgery, making it more accurate, faster and safer. There are several advantages such as: surgical splint is not necessary since the guides and the plates already come with the information of three-dimensional positioning of the osteotomized segment, the condylar positioning and control of the vertical dimension. Patient A. L. C, 35 years old, Angle dental class III, had severe facial asymmetry. Maxillary advancement of 3 mm was planned with cant correction, a 7 mm jaw recoil and mentoplasty. The surgery was performed according to 3D planning (3-matic software) and custom mini-plates was printed on titanium. Orthodontic treatment started exactly 5 days after surgery. In the second month, in his first orthodontic maintenance, the patient was already in class I of Angle with midline, vertical and horizontal transpass corrected. Early-benefit surgery when well-planned accelerates orthodontic treatment by decreasing treatment time with the benefit does not worsen the patient's face or undergo an orthodontics prior to surgery

Descritores:

Orthognathic surgery; Surgical fixation devices; Facial Asymmetry

Fonte: CNPq, FADESPA, Hospital Ophir Loyola

TL 13

Código do trabalho: Abor 110

Autores:

RITTER DE

COMBINING TRADITIONAL TECHNIQUES TO CORRECT ANTERIOR OPEN BITE AND POSTERIOR CROSSBITE**Resumo:**

The treatment of anterior open bite often requires the use of skeletal anchorage to prevent excessive eruption of the posterior teeth and consequent downward rotation of the mandible. However, this procedure might not always be accomplished. This presentation reports the successful treatment of an anterior open bite and a posterior crossbite in a young boy, combining traditional techniques and involving high-pull maxillary traction to help growth to correct the skeletal Class II malocclusion without skeletal anchorage. The treatment of anterior open bite often requires the use of skeletal anchorage to prevent excessive eruption of the posterior teeth and consequent downward rotation of the mandible. However, this procedure might not always be accomplished. This article reports the successful treatment of an anterior open bite and a posterior crossbite in a young boy, combining traditional techniques and involving high-pull maxillary traction to help growth to correct the skeletal Class II malocclusion without skeletal anchorage.

Descritores:

Orthodontics; Open Bite; Cross Bite

TL 14

Código do trabalho: Abor 118

Autores:

ROSAR JP, CARDOSO PC, NUNES L, CAPELLI JR J

MANDIBULAR INCISOR EXTRACTION IN ORTHODONTICS: UNDERSTAND TO BETTER INDICATE**Resumo:**

The option of mandibular incisor extraction in orthodontics treatment remains a controversial modality of treatment, presenting very low frequencies, from 1% to 6% of the treatments with extraction. However, this percentual was quite different in the 50's, where this extraction corresponded to 20%, with a significative reduction in its use over the years. Although it is a recognized treatment option, it is still controversial due to the difficulties in indicating and controlling its consequences. Therefore, it is of fundamental importance that the orthodontist know the precise indications of this type of treatment in order to better manage its effects. The objective of this study is to describe and exemplify with clinical cases the selection criteria for mandibular incisor extraction, such as mild to moderate Class III malocclusion and lower Bolton discrepancy; As well as to describe cases where the selection of this extraction is contraindicated, such as increased overjet and overbite relationship, periodontal disease and triangular incisors. The understanding of the effects and results of lower incisor extraction therapy, orthodontic management of extraction space, intercuspitation at the end of treatment and the retention of those cases should be carefully analyzed in the indication of this therapy. Knowledge of these aspects allows the orthodontist to make a judicious and evidence-based decision to consider this therapy as a treatment option

Descritores:

Extraction; Incisor; Malocclusion

TL 15

Código do trabalho: Abor 124

Autores:

PUETTER UT

CAMOUFLAGE OF A HIGH-ANGLE SKELETAL CLASS II OPEN-BITE MALOCCLUSION IN AN ADULT AFTER MINI-IMPLANT FAILURE

Resumo:

The treatment of skeletal anterior open-bite malocclusion requires complex orthodontic planning that considers its multifactorial etiology, treatment limitations, and high relapse rates. This case report illustrates a successful treatment approach for a skeletal high-angle Class II malocclusion in an adult with a severe open bite. The treatment consisted of a high-pull headgear therapy after mini-implants failure during fixed orthodontic therapy. Adequate esthetics and function were achieved. Despite its low probability, the unexpected event of mini-implant loosening during complex treatments should be considered. Therefore, classic orthodontic mechanics should be established, especially when treating patients for whom invasive procedures such as miniplates or orthognathic surgery are not available options.

Descritores:

Open bite; Orthodontic anchorage procedures; Extraoral Traction Appliances

TL 16

Código do trabalho: Abor 130

Autores:

GOMES TA*, CAMPOS MLR, SERAFIM CMC, SIQUEIRA DF

USE OF FORSUS (3M) FOR TREATMENT OF SKELETAL CLASS II MALOCCLUSION: A CASE REPORT**Resumo:**

Among malocclusions about 42% is characterized by Class II malocclusion which may present a dental involvement skeletal involvement or both. Class II skeletal malocclusion may be caused by a deficiency of mandibular growth maxillary overgrowth or association of the two factors. Individuals with mandibular growth deficits usually have a convex facial profile. This type of problem can be intercepted with the application of mandibular protraction hybrid fixed orthopedic appliance. The Forsus mandibular protraction appliance (3M) is easily installed by professional and adaptation by patient, its activation is slow and constant. This case report is about a 14-years-old male patient with Class II malocclusion, pattern II, Class II dental relation, convex, brachyfacial, mandibular and smile profile with only upper incisors. The carpal radiography showed presence of growth. The patient was treated with the Andrews prescription fixed appliance followed by Forsus(3M) appliance. The treatment time was 30 months and at the end there was the return of the Class I dental relation, remarkable harmony when smiling and adequate profile.

Descritores:

Malocclusion; Orthodontics, Corrective ; Malocclusion, Angle Class II

TL 17

Código do trabalho: Abor 147

Autores:

OLIVEIRA RP*, FAGUNDES NCF, MELLO KCFR.

SLEEP DENTISTRY - THE ROLE OF THE ORTHODONTIST AND THE TREATMENT WITH INTRAORAL MANDIBULAR ADVANCEMENT DEVICE.**Resumo:**

Sleep respiratory disorder can often be detected by an orthodontist when doing anamnesis and a detailed examination of the patient's occlusion and profile. In this sense, the orthodontist has the duty to identify such disorders or indications of pre-disposition and to alert the patient, referring him to a qualified sleep dentist and avoiding mechanics in orthodontic treatment that exacerbate the problem, such as dental extraction and retraction. In adults, the treatment of snoring and mild to moderate apnea is performed with an intraoral mandibular advancement device (MAD) that unblocks the passage of air. The purpose of this paper is to alert orthodontists about the importance of diagnosis, knowledge of the consequences, care and treatment of sleep disorders and to present a clinical case that shows the effectiveness of the intraoral MAD. Patient A. E. J., male, 47 years old, main complaint of insomnia, snoring and apnea and with polysomnography with Apnea and Hypoapnea Index of 19/hour, with 61 obstructive apneas and 35 significant reductions in oxygenation. The PM Positioner appliance was installed and activated 1mm per month and after 7 months was requested a new examination with the appliance in 80% of the maximum protrusion, reducing the index to 09/hour with 04 obstructive apneas and without reduction in oxygenation. The device was activated up to 90% and after 2 years the patient is without complaints and returns to the clinic for annual control. Thus, we verified the efficacy of the treatment with intraoral mandibular advancement device and the role of the orthodontist in the contribution of patients' quality of life.

Descritores:

Sleep Apnea, Obstructive; Snoring

TL 18

Código do trabalho: Abor 152

Autores:

PEREIRA GO, MOURA WS, BARROS EFM, HENRIQUES JFC

PREVALENCE OF DIASTEMAS AMONG MAXILLARY CENTRAL INCISORS IN PATIENTS WITH MAXILLARY LATERAL INCISOR AGENESIS**Resumo:**

This paper is a pilot study and aimed to evaluate the presence of diastema between maxillary central incisors in patients with maxillary lateral incisor agenesis and to analyze if there is a relationship between the amount of diastema and the positioning of the incisors. We evaluated 542 documentations of patient and 5 were selected according to the inclusion criteria. To select the sample, the orthodontic dental models and cephalometric data of the patients were evaluated and the following inclusion criteria were applied: patients with maxillary lateral incisor agenesis; Orthodontic dental models without fractures and zoned; Patients without previous orthodontic treatment. Descriptive statistics and Pearson's correlation were used to evaluate the data. In 100% of the sample, the presence of diastema was observed between the upper central incisors, the majority were male participants, horizontal growth pattern, with maxillary incisors proclined and well positioned in the anteroposterior direction. Positive correlation was observed between the amount of diastema and AP position of the upper incisors and no correlation was observed between the inclination of the incisors and the amount of diastema. The present study observed the presence of diastema between upper central incisors in all cases with maxillary lateral incisor agenesis evaluated and a positive correlation between the amount of diastema and the AP position of the upper incisors.

Descritores:

Dental Agenesis; Diastemas; Malocclusion

TL 19

Código do trabalho Abor 179

Autores:

BENEDITO VIANA FREITAS

CORRECTION OF CLASS II DIVISION 1 WITH BIONATOR, MINIIMPLANT, MANDIBULAR PROCTRACTION APPLIANCES AND MEAW**Resumo:**

A male child aged 10 years and 7 months came for consultation with a Chief Complaint of "teeth forward". The clinical examination showed an interposition of the lower lip between his teeth, a convex facial profile, a retrognathic mandible and a Class II Division 1 malocclusion. Bionator of Balters was used for 1 year and 10 months to promote a mandibular advancement and improve peribuccal musculature. Then, fixed appliances were installed to obtain space for the lower cuspids. During treatment a Gummy Smile was detected and treated using a mini-implante between the roots of the upper incisors to intrusion of four incisors. The MPA (Mandibular Protraction Appliance) has been used unilaterally to correct the remaining Class II. The Multiloop Edgewise Arch Wire technique was used for completion of the treatment. The total time of the treatment was 50 months. The final result showed a satisfactory occlusion and a good facial profile.

Descritores:

Bionator of Balters; Class II, division 1 malocclusion; Retrognathia

TL 20

Código do trabalho: Abor 182

Autores:

MARANHÃO KM, OLIVEIRA FNB*, AZEVEDO DR, BRANDÃO G, GATTI JFA, LIMA CPS.

A COMPARISON OF SHEAR BOND STRENGTH AFTER BONDING WITH TWO ORTHODONTIC CEMENTS: AN IN VITRO STUDY**Resumo:**

The objective of this study was to evaluate the shear strength of orthodontic bands cemented with a new Orthobite composite, comparing them to the conventional glass ionomer cement, in bovine enamel and to analyze the adhesive remnant index (ARI). The sample consisted of 30 bovine teeth divided into 2 groups: Group I - Orthobite (FGM) and Group II - CIV MERON (VOCO). Prophylaxis has been made with pumice and water, followed by cementation according to the instructions of the manufacturers. Afterwards, they were subjected to the shear test at a speed of 0.5 mm/ minute speed. Data were submitted to the Student T and Kruskal-Wallis test. Significant statistical differences were found between the groups, both in the shear strength values ($p > 0.05$) and in the ARI assessment ($p > 0.05$). Thus, between the groups, Orthobite cement proved to be statistically superior to Meron, exhibited adequate adhesive bond strength for clinical use.

Descritores:

Glass ionomer; Shear bond strength; Composite

TL 21

Código do trabalho: Abor 183

Autores:

MARANHÃO KM, OLIVEIRA FNB, SOUZA AR*, AZEVEDO DR, BRANDÃO G, GATTI JFA, LIMA CPS.

EVALUATION OF THE SHEAR STRENGTH OF ORTHODONTIC BANDS CEMENTED WITH NEW COMPOSITE USING ADHESIVE SYSTEM

Resumo:

The aim of this study was to evaluate the shear bond strength of the Orthobite composite (FGM) using the Single Bond adhesive system (3M). The sample consisted of 30 bovine incisors divided in 2 groups (n=15). All teeth were submitted to prophylaxes with pumice stone and etching with phosphoric acid. In Group I the Orthobite was used conventionally. Group II was similar to Group I, however, the Single Bond adhesive system was applied after conditioning. The samples were stored in distilled water in incubator at 37°C for 24h and submitted to the shear strength test at a speed of 0.5 mm/ minute speed. Data were submitted to the Student T test (5%). The results (MPa) showed no statistically significant differences between the groups, regardless of surface treatment. Thus, all groups exhibited adequate adhesive bond strength for clinical use.

Descritores:

Shear bond strength; Composite; Orthodontics

TL 22

Código do trabalho: Abor 000

Autores:

JULIANA BRAGA REIS; MARIA PIRES MACHADO PAIXÃO; KELLY MARIA SILVA MOREIRA; RICARDO SCARPARO NAVARRO; JOSÉ CARLOS PETTOROSSO IMPARATO

ECTOPIC ERUPTION OF PERMANENT CANINE: THE IMPORTANCE OF EARLY DIAGNOSIS AND INTERCEPTION**Resumo:**

The irruption of permanent upper canine ectopic can result in resorption of incisor adjacent teeth. Due to the lack of obvious clinical signs when the time comes for the diagnosis and the interception, it is important for children to be evaluated by an orthodontist, at the start of the first transitional period of mixed dentition, for risk definition and treatment protocol. This free theme will illustrate the interceptive protocol, already described in the relevant literature, consisting of diagnosis and definition of risk by assessing the height and angle of the permanent canine at panoramic radiography. Excessively high or mesio angled canines and maxillary atresia were considered risk factors and require rapid maxillary expansion followed by irruption dental monitoring. When necessary, and indicated, the dental extraction of deciduous molars and canines at the start of the second transitional period facilitate the intra-bone angulation correction of the permanent canines and, consequently, provide its eruption.

Descritores:

interceptive orthodontics, cuspid, tooth eruption

TL 23

Código do trabalho: Abor 100

Autores:

RAMOS BLV*, PASSOS LNP, DAMACENO FMM, PERES ACR

SWIMMING AS A CO-ADJUVANT IN CLASS II TREATMENT, DIVISION I IN ADOLESCENT STUDENTS AT CIA ATHLETICA IN BELÉM-PA**Resumo:**

The malocclusions are deviations from the normality of the dental arch and facial skeleton with variable reflexes of the stomatognathic system. Class II division I has the characteristic protrusion of the upper incisors, the atresic arcade similar to a "V" and nutritional, hormonal influences, traumas, tumors, early loss of deciduous teeth, deleterious habits and genetic inheritance, producing alterations in the Muscular functions, respiratory, swallowing and chewing, causing apnea and physical tiredness. Swimming has the benefit of strengthening muscle tone, elevating self-esteem, relieving muscle and joint pain, and promoting physical, psychomotor, social and psychological development. The purpose of this study is to propose to class II, division I patients, the importance of swimming for better cognitive, affective and social quality of life. Thirty students participated in the study, 15 of whom were female and 15 were male, all of whom were randomly selected and still practiced swimming for at least one year, using the same criteria. Based on the following information obtained through scientific articles, a questionnaire with 10 questions was elaborated for students about the benefits that were acquired by each one with the practice of swimming regularly. After analysis of the results, spreadsheets and graphs were created, which indicated significant indexes in the reduction of orthodontic treatment, improvement in the respiratory (apneic) and global in social, emotional and mental relations.

Descritores:

Swimming; orthodontics; quality of life

TL 24

Código do trabalho: Abor 192

Autores:

FAGUNDES NCF*, RABELLO NM, MAIA LC, NORMANDO D, MELLO KCFR

EFFECTS OF RAPID MAXILLARY EXPANSION IN CHILDREN AND ADOLESCENTS WITH HEARING LOSS: A SYSTEMATIC REVIEW**Resumo:**

This systematic review aims to evaluate whether the use of palatal expansion techniques can influence hearing loss in children and adolescents with some type of previous hearing loss. This review was performed following the criteria established by the PRISMA guide. Electronic searches in the PubMed, Scopus, Web of Science, Cochrane Library, Lilacs, OpenGrey and Google Scholar bases were performed with no language or time restriction. We included clinical trials that focused on rapid maxillary expansion in children and adolescents with hearing loss. After the selection of studies, methodological quality assessment and data extraction were performed. 74 citations were found by the research. Initially, 12 studies were selected according to the eligibility criteria, but 3 studies were excluded due to the presence of adults, absence of auditory levels evaluation and sample overlap, resulting in nine studies. The mean improvement in hearing levels varied from 2 to 19 dB between the studies. The risk of bias varied from low to moderate. The present evidence indicates auditory improvement after maxillary expansion in patients with hearing loss in the studies evaluated, although more rigorous and randomized studies are needed to investigate this issue.

Descritores:

Child; Palatal Expansion Technique; Hearing loss

TL 25

Código do trabalho: Abor 260

Autores:

BLAGITZ MN*, NORMANDO ADC, ALMEIDA GA.

FACTORS ASSOCIATED TO STABILITY OF THE COMPENSATORY TREATMENT OF CLASS III MALOCCLUSION IN PERMANENT DENTITION**Resumo:**

To evaluate the stability of the compensatory treatment of class III malocclusion in permanent dentition. 36 (21 female and 15 male) patients were selected, mean age of 20 years, with class III malocclusion, treated with dental camouflage in the permanent dentition and at least 3 years after the end of treatment. The multivariate Poisson regression analysis was used to evaluate the influence of clinical records (Sex, age, treatment time, posttreatment time, number of treatment phases, extractions, months of elastic use), cephalometric radiographs (SNA, SNB, ANB, WITS, SNGoGn, 1.NA, IMPA) and dental casts (PAR index and arch dimensions) at the beginning (T1), at the end (T2) and at the clinical relapse of class III (T3). Eleven patients (30.6%) presented clinical relapse of class III relation. The cases that presented lower inclination of the upper incisors in T1 ($p=0.035$), treated with extractions ($p=0.001$) and that were better finished (PAR-T2, $p=0.009$) presented a lower risk of relapse. All other variables were not significantly associated with clinical relapse (T3). The stability of the compensatory treatment of class III in the permanent dentition is multifactorial with few predictive variables. Patients treated with extractions of lower premolars, well finished presented a reduced risk of relapse, while excessive inclination of the upper incisors at the beginning of treatment increases the risk of relapse.

Descritores:

Malocclusion Angle Class III; Recurrence; Treatment Outcome

TL 26

Código do Trabalho: Abor193

Autores:

ALVES ACM*, JANSON G, LAURIS RCMC, GARIB DG

DENTOSKELETAL EFFECTS OF THE EXPANDER WITH DIFFERENTIAL OPENING: A RANDOMIZED CLINICAL TRIAL**Resumo:**

The aim of this study was to compare the dentoskeletal effects of the expander with differential opening (EDO) and the Hyrax expander in the mixed dentition. Patients were randomly allocated into two study groups. Experimental group (n=22, mean age of 8.56 years) and comparison group (n=24, mean age of 8.92) comprised treatment with the EDO and with the Hyrax expander, respectively. The primary outcomes were the interincisal diastema width change, the dimension of midpalatal suture opening, the maxillary dental arch widths, the arch perimeter, the arch length, the palatal depth, the inclination of maxillary posterior teeth and the dental arch shape. Inter-phase and intergroup comparisons were performed using paired t tests and t tests, respectively, with Bonferroni correction for multiple tests. The EDO promoted a significantly greater increase of the interincisal diastema width, a greater opening of the anterior region of the midpalatal suture, and greater increases of the intercanine distance, the inter-first deciduous molars distance and the inter-second deciduous molars distance compared to the Hyrax expander. The experimental group showed a significant differential expansion between the anterior and the posterior regions while the comparison group produced a similar expansion in the canine and in the molar regions. The EDO promoted a greater increase in the anterior region of the maxillary dental arch compared to Hyrax expander.

Descritores:

Orthodontics, Interceptive; Orthodontic appliance design; Palatal expansion technique

Fonte: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)

TL 27

Código do trabalho: Abor 202

Autores:

ANTELO OM, GIACOBBO LC *, MEIRA TM, TANAKA O.

ORTHODONTIC RETREATMENT. BIOMECHANICS WITH EXTRACTIONS OF THREE MANDIBULAR TEETH**Resumo:**

The number of adult patients seeking orthodontic treatment is increasing and the esthetic result is the main reason. With this, the need for multidisciplinary treatment increases. The anterior crossbite is a malocclusion characterized by a negative horizontal overjet. Posterior crossbite is one of the most prevalent malocclusions and can be defined as a change in the width of the dental arches, which may be uni or bilateral. Both can involve one or more teeth and have dentoalveolar, functional or skeletal etiology. The oral presentation will be illustrated with an orthodontic retreatment, performed in a 32-year-old adult patient who presented a Class II skeletal, mesofacial, Class II malocclusion, left subdivision (Canines in Class III relationship), as a consequence of extractions of maxillary first premolars performed in a previous orthodontic treatment. The retreatment began with the extractions of the second right mandibular premolar, the mandibullary left first premolar and the third lower right molar. The MBT aesthetic fixed appliance was installed for alignment, leveling, sagittal correction of dental arches with the molars and canines in Class I and closure of spaces. Implant prosthesis was placed in the region of the second right mandibular molar. Retention were fixed upper and lower with 0.032 "braided wire. The final result was satisfactory, with the correction of anterior and posterior crossbite. The dental aesthetic was reestablished, providing a balanced occlusion.

Descritores:

Malloclusion; crossbite; retreatment

TL 28

Código do trabalho: Abor 205

Autores:

GUIMARÃES NETO UG, COSTA CES, OLIVEIRA LB, FERREIRA SANB.

IMPACT OF THE MALOCCLUSION SEVERITY IN THE QUALITY OF LIFE RELATED TO THE ORAL HEALTH IN QUILOMBOLA ADOLESCENTS**Resumo:**

The aim of this study was to evaluate the impact of malocclusion severity on quality of life related to oral health (QVRSB) of quilombola adolescents in the municipality of Macapá-AP. A cross-sectional population study was carried out with 179 adolescents aged 11 to 14 residing in the 1,500 - person community. The clinical examinations were performed by a single examiner and allowed to obtain data on malocclusion, dental caries and periodontal condition by the ICD, CPOD and CPI criteria, respectively. The questionnaire CPQ 11-14 - ISF: 8 was used to measure the HRQOL of adolescents. Socioeconomic variables were collected and analyzed with Poisson regression with robust variance and the univariate and multivariate analyzes of Poisson regression (p

Descritores:

Malocclusion; Prevalence; Vulnerable populations

Fonte: Patrocinador Principal: Financiamento Próprio E DADOS DO PARECER Número do Parecer: 1.367.530

TL 29

Código do trabalho: Abor 205

Autores:

PAIVA ACJ*, PICANÇO PRB, MELO RB, LIMA FC.

ORTHODONTIC TREATMENT IN A UNILATERAL CLEFT LIP AND PALATE PATIENT WITH EDGEWISE AND BUTTERFLY MAXILLARY EXPANDER

Resumo:

To demonstrate a orthodontic form of treatment using Edgewise technique associate to maxillary expansion on a complete unilateral cleft lip and palate after aesthetics and functional surgery in lips and palate. In this case report the patient has all documents and exams required. After it a treatment plan was purposed using Edgewise (Morelli® Slot 0,18) with maxillary expanders (Morelli®) association. Two butterfly expanders were used one after first be completely expanded. In sequence, upper distalization were made in Class II and recovery spaces in anterior maxillary for incisors. After orthodontic finalization, patient receive temporary tooth and was send to bone graft ant prosthesis. This case shows how a treatment with indicate technique gives to patient an amazing final aesthetic and functional obeying all occlusion's keys.

Descritores:

Palatal Expansion Technique; Cleft Lip and Palate; Malocclusion

TL 30

Código do trabalho: Abor 213

Autores:

MOREIRA PEO*, TEIXEIRA SF, BRANDÃO AMM, NEVES MG, BRANDÃO GAM

COMPLEXITY OF MALOCCLUSION AND AGREEMENT BETWEEN ORTHODONTICS IN PREDICTING THE NECESSARY TIME OF ORTHODONTIC TREATMENT**Resumo:**

This study investigated possible relationships between objective characteristics of malocclusion and the agreement of orthodontists in predicting the time required for orthodontic treatment, according to an early evaluation of the complexity of treatment. Thirteen orthodontics cases based on the Dental Health Component (DHC) of the Index of Orthodontic Treatment need (IOTN) were selected, presenting intra and extra oral photos, panoramic radiographs and cephalometric exam. Thirty orthodontists were requested to respond: "How would you assess the complexity of treatment of this orthodontic case considering this particular malocclusion characteristic?". A scale of 1 to 5 was created (1 = easy, 2 = slight, 3 = moderate, 4 = difficult, 5 = very difficult). Subsequently, the time required (in months) for correction the malocclusion visualized was answered. In relation to the complexity of treatment, the cases that obtained a significant statistical relation

Descritores:

Malocclusion; Prediction; Treatment

TL 31

Código do trabalho: Abor 264

Aurores:

NASCIMENTO WC*, BRANDÃO GAM, BRANDÃO AMM.

EARLY TREATMENT OF CLASS III MALOCCLUSION IN THE DECIDUOUS DENTITION. CASE REPORT.**Resumo:**

Class III malocclusion may produce a slight or marked change in the patient's face, being of skeletal or dental origin. This malocclusion is caused by mandibular prognathism, maxillary retrognathism or the union of the two factors. This problem should be treated preferentially during the craniofacial growth and development phase with the use of orthopedic appliances, where the protrusion of the maxilla, due to its intramembranous growth, will respond better to the application of orthopedic forces, whereas the orthopedic actions on the Mandible are limited due to their endochondral growth. The present study aims to present the interceptive treatment of a patient in a stage of deciduous dentition in the growth phase that presented a class III malocclusion with alteration of the facial profile. The treatment was due to the maxillary expansion and the reverse traction, obtaining success in the result of the correction of class III malocclusion and a great improvement in the facial profile of the patient. Parents were informed about the possibility of a second intervention to maintain the results of early treatment. The early treatment of class III in the deciduous dentition is a great challenge for the orthodontist, and can present good results if the correct planning is done. It is always important to emphasize the need for follow-up until the end of the patient's growth, since the results achieved can be altered due to the genetic growth pattern.

Descritores:

Malocclusion; Malocclusion, Angle Class III; Orthotic Devices

TL 32

Código do trabalho: Abor 218

Autores:

CAMPOS MLR*, AMORIM TA, SERAFIM CMC, SIQUEIRA, DF

SKELETAL PATTERN WITH MAXILLARY RETRUSION: CASE REPORT**Resumo:**

Orthodontic treatment to improve not only tooth alignment but also facial esthetics. This case report reports of orthodontic therapy performed in patient with a Class I, maxillary retrusion, concave profile and retrusion of the upper and lower lips. Maxillary expansion was followed by face mask therapy and orthodontic treatment with a fixed appliance. Besides the improvement of the dental position, there was an improvement of the soft profile with projection of the lips. It is also to show stability after 4 and 10 years treatment completion.

Descritores:

Maxillofacial Development ; Esthetics; Maxilla

TL 33

Código do trabalho: Abor 228

Autores:

MAUES CPR*, ALENCAR DS, CARVALHO FAR

ORTHODONTIC CAMOUFLAGE TREATMENT OF SKELETAL CLASS II MALOCCLUSION: WHAT'S THE LIMIT? – CASE REPORT**Resumo:**

Dental health and patient satisfaction at the end of orthodontic treatment are determinants for the success of the proposed therapy. Therefore, the aim of this study is to highlight the importance of diagnosis in orthodontic, through this case report initially treated with camouflage, despite its surgical indication. A male patient, 16-year-old sought treatment complaining of the face, reported having been using an appliance for 6 years, observing no improvements. He had a convex profile, an enlargement of his face's lower third, a reduced cervical-mandibular line and Class II molar relationship. The upper incisors had excessive buccal root torque, palpation pain and mobility, with no visible bone coverage in the tomographic sections. The cephalometric analysis confirmed the skeletal Class II ($ANB = 12.3^\circ$, $Wits = 17.4$ mm), due to severe mandibular deficiency ($SNB = 71.6^\circ$), aggravated by the tendency of vertical growth ($FMA = 33.9^\circ$). Changes in $IMPA (105.2^\circ)$ and $U1-NA (2.4^\circ; -2$ mm) reflected the previous orthodontic attempt to compensate for malocclusion. After periodontal and endodontic evaluation, it was decided to position the incisors in their bone bases, extracting lower first premolars, to generate space for the lower second mol and increasing the overjet to refer it to orthognathic surgery. At treatment's end, the patient was satisfied aesthetically and functionally. It is concluded that the correct diagnosis and planning are essential for an orthodontics with excellent results in which the limits of a compensatory treatment are respected.

Descritores:

Orthognathic Surgery; Malocclusion, Angle Class II; Orthodontics

TL 34

Código do trabalho: Abor 243

Autores:

ROCHA R*, PERLIN E, RIBEIRO G, DERECH C

SECONDARY ALVEOLAR BONE GRAFT IN THE CLEFT PATIENTS TREATMENT**Resumo:**

Cleft Lip-palate is a congenital malformation affecting 1 in 800 live-born children. It involves a varied range in the degree of impairment of orofacial structures. Therapeutic management involves, in most cases, the multidisciplinary approach. The orthodontist plays a leading role in the treatment of these patients. The presence of the alveolar cleft, verified in almost 70% of those affected, greatly restricts the prognosis of the orthodontic approach. In this presentation we will present important points about the diagnosis of the cleft, orthodontic planning and preparation in order to optimize the reconstruction of the alveolar ridge.

Descritores:

Cleft; Alveolar Bone Graft; Orthodontics

TL 35

Código do trabalho: Abor 191

Autores:

GUIMARAES JR, CH

DIAGNOSIS AND PLANNING IN ORTHODONTICS - PART I

Resumo:

Studies show that our brain uses two forms of reasoning: intuitive heuristic processing and rule-based analytic in a deliberate way. In an article published in the American Journal of Orthodontics by Kluemper and Hicks in 2011, in orthodontics as well as in other areas of health care the standard is the heuristic way, this mode can become problematic, since the choice is built up in fragments Of memory that are routinely considered alternatives by preference and prior evaluations. The objective of this work is to reinforce the basic principles of diagnosis and planning, emphasizing the importance of several cephalometric analyzes of the dento-skeletal facial pattern, adding current concepts of efficient protocols of orthodontics based on scientific evidence, presenting several clinical cases.

Descritores:

Diagnosis; Orthodontics; Malocclusion

TL 36

Código do trabalho: Abor 010

Autores:

MIGUEL JAM, FERNANDES LQP*, SANTOS DJ.

ASYMMETRICAL CLASS II MALOCCLUSION CORRECTION USING AN ABSOLUTE ANCHORAGE**Resumo:**

The Class II Angle subdivision malocclusion is characterized by a change in the sagittal relationship at only one side. It can be classified into Type 1 when the lower molar is in distal position, or in Type 2, when the upper molar is in mesial position. There are different reported approaches for treatment of Class II subdivision in adult patients, including intramaxillary devices (ex: distalizers), intermaxillary (ex: elastics), tooth extraction and orthognathic surgery. Camouflage is indicated for patients with mild to moderate dentoskeletal discrepancies with no significant facial asymmetry. Thus, the use of skeletal anchorage for treatment of class II subdivision malocclusion was indicated in two adult patients, since this approach did not depend on their compliance, it was able to avoid tooth extraction and side effects on the normal side as it occurs with the use of intraoral elastics. In both cases, there were few changes in the positioning of the upper incisors as in the facial profile. Stability of the results was achieved because of the asymmetric class II overcorrection. As with the use of intraoral elastics, overcorrection of the malocclusion with skeletal anchorage is necessary to reach stability of the treatment results.

Descritores:

Class II subdivision malocclusion, Skeletal anchorage, Facial asymmetry

TL 37

Código do trabalho: Abor 216

Autores:

FERREIRA DP*, BALDO TO, FRIEDRICHSDORF SP, TORTAMANO A, DOMINGUEZ GC.

USE OF THE LED DEVICE IN THE ORTHODONTIC RETRACTION PHASE TO CONTROL THE POST-ACTIVATION PAIN.**Resumo:**

Currently in Orthodontics, the LED has been used to reduce the pain of patients after orthodontic activation. The objective of this study was to clinically evaluate the effect of LED as a method to reduce pain reported by the patient after the activation of orthodontic retraction (closure of spaces). A sample of 18 patients between 13 and 18 years old, sequentially allocated in two groups: GLED composed of ten patients (5H, 5M) who self-applied with an LED device for 10 minutes daily, during the orthodontic retraction phase, for a period of 12 weeks and GC, composed of eight patients (4H, 4M) who did not apply the LED during the same phase. All patients received a questionnaire to fill out at home, which classified the type of pain during the next 7 consecutive days' the first activation of orthodontic retraction. Compared between the two groups (LED and GC) and between two moments (day 1 to day 7) and the pain scale from 0 to 10, it was observed that GLED presented less intense pain and for a shorter time than CG, Difference was not statistically significant ($p = 0.535$). It was concluded that there was no difference between the groups regarding the pain scale for all observed days. In both groups there was a gradual reduction of pain, being significant from the sixth day.

Descritores:

Orthodontic Movement; LED; Pain

TL 38

Código do trabalho: Abor 267

Autores:

ABRAHAO CAVALCANTE GOMES DE SOUZA CARVALHO; MARCELO MORAES; SUZANA SOUZA CARVALHO MACIEL

3D VIRTUAL PLANNING IN ORTHOGNATHIC SURGERY: ACCURACY IN A BORDER LINE CASE**Resumo:**

The advancement of technologies for 3D image acquisition and reconstruction, lead Buco-Maxillo-Facial Surgeon and the orthodontist to understand the technological advances for the incorporation of 3D digital planning protocols in their orthognathic surgery planning routine, especially in borderline cases, which require greater planning accuracy. The aim of the present study is report the case of a 27 - year - old, class III, with laterognathia of the mandible, compensated tooth, who presented complaints of facial aesthetics related to asymmetry. The patient was then submitted to facial analysis and computed tomography. Using Dolphin software, digital planning was carried out, which involved the need for prior tooth decompensation of the patient and bimaxillary surgery with maxilla advancement, correction of the patient's occlusal plane, balance and correction of anterior vertical discrepancies and laterognathic balance. The patient had an excellent evolution and was presently with 1 year of postoperative follow-up without functional or aesthetic complaints

Descritores:

Virtual planning; Orthognathic Surgery; Orthodontics

TL 39

Código do trabalho: Abor 270

Autores:

GUIMARÃES LK*, TAFFAREL, IP, GIACOBBO LC, TANAKA O.

HABITS IN CHILDHOOD SKELETAL MALOCCLUSION AND DENTAL MALOCCLUSION CLINICAL CASE REPORT**Resumo:**

The diagnosis of open bite, crossbite, forward-facing teeth, poorly positioned tongue, is called malocclusion deviation. These problems occur because the teeth and jaws are poorly positioned, the indication for their treatment is with the aid of Haas or Hyrax type jaw expander devices commonly used. The intervention of the malocclusion should be done during deciduous dentition, aiding in well-positioned and balanced bone support. At this stage the child may acquire habits that are harmful to this training, muscular and bone, such as the habit of finger sucking and / or pacifiers. The effects of these harmful habits on the development of the maxilla and the mandible and on the dental arches depend on the osteogenic development of the child, duration, frequency and intensity, impairing the functions of the stomatognathic system. That is why intervention by the orthodontist is fundamental. This free theme aims to present the correction of the malocclusion of the patient still in the deciduous dentition, with the Hyrax palatal cleavage apparatus, with adequacy of the palatine grille for interruption of pacifier and finger sucking habit.

Descritores:

Malocclusion; Open Bite; Crossbite

TL 40

Código do trabalho: 275

Autores:

OLIVEIRA DD, OLIVEIRA PM*, PANTUZO MCG, CASTRO P

ORTHO-SURGICAL APPROACH FOR TREATMENT OF MANDIBULAR SKELETAL CLASS II ASSOCIATED WITH VERTICAL MAXILLARY EXCESS**Resumo:**

Class II bone dysplasias have a high prevalence in the world, and the main cause is deficiency in the anteroposterior growth of the mandible. The approach to such a condition becomes more complex when the patient has already reached skeletal maturation and therefore has no growth. An alternative to this kind of situation is ortho-surgical planning. The purpose of this article is to illustrate the case of a female patient, 28 years old, whose main complaints were "chin too far behind and show a lot of gums when smiling" and "I would like a treatment with a maximum of one year" once she had already undergone a compensatory orthodontic treatment for 5 years as a teenager. Thus, the proposed new planning was based on her main complaints, therefore, an ortho-surgical treatment involving a preoperative orthodontic stage with dental decompensations, orthognathic surgery based on maxilla impaction, mandibular counterclockwise self-rotation, mentoplasty, rhinoplasty and, finally, a post-surgical orthodontic stage. Thus, a good antero-posterior positioning of the mandible with respect to the maxilla was achieved, adequate functional guidelines were established and the patient's aesthetic complaints were met.

Descritores:

Orthognathic surgery; Retreatment

TL 41

Código do trabalho : Abor 279

Autores:

SOUSA LM, BRANDÃO GAM, BRANDÃO AMM, PASSOS LT

EARLY TREATMENT OF CLASS III MALOCCLUSION IN THE MIXED DENTURE: CASE REPORT

Resumo:

The early treatment of Class III malocclusions poses a challenge for the orthodontist. Once Class III is diagnosed, therapy should be instituted as early as possible to prevent or intercept malocclusion, although the long-term impact of early treatment can not be predicted clearly, it may assist in the development of normal occlusion and a good facial harmony. The objective of this study was to present a clinical case of early treatment of Class III in the mixed dentition, where maxillary expansion was used associated with facial mask therapy, demonstrating that patient collaboration was fundamental to reach the results.

Descritores:

Interception; class III; Malocclusion

TL 42

Código do trabalho: Abor 287

Autores:

KATHERINE JUDITH DE CARVALHO MACÁRIO PRESADO SILVER

ALTERNATIVE TREATMENT FOR HYPERDIVERGENT SKELETAL CLASS II WITH EXCESSIVE GINGIVAL EXPOSURE**Resumo:**

Treatment of hyperdivergent skeletal Class II is one of the most challenging for orthodontists. With the advent of mini-implants, patients who previously had an indication of orthognathic surgery may be favored with anti-clockwise rotation of the mandible, with intrusion of the posterior elements. Also cases with exaggerated gingival exposure may benefit from this mechanics in the anterior segment. This case demonstrates an alternative successful treatment of a hyperdivergent skeletal Class II patient, with a marked gingival smile and absence of resting lip seal. Initially, the second premolars were extracted for loss of anchorage of the posterior segment aiding in the decrease of the angle of the mandibular plane. Subsequently, a high pull extra-buccal appliance was installed to contain the maxillary alveolar growth. After space clousured, mini-implants were installed in the upper middle line and between premolars and upper molars and the mechanics for intrusion of the entire upper arch were initiated, followed by gingivectomy at the end. In this way, a suitable functional and aesthetic result was obtained with correction of increased gingival exposure, lip positioning, allowing sealing and also improved mandibular plane angle. Although it does not replace orthognathic surgery, such modality of treatment may benefit patients who are not willing to undergo a more invasive procedure.

Descritores:

Malocclusion; Bone Development; Orthodontic Anchorage Procedures

TL 43

Código de trabalho: Abor 189

Autores:

OLIVEIRA, LÍVIA TORQUATO; BRITO, HÉLIO HENRIQUE DE ARAÚJO; JUNIOR, ILDEU ANDRADE

IS IT POSSIBLE TO LEVEL THE CURVE OF SPEE WITHOUT INCISOR PROJECTION?**Resumo:**

A deep overbite can be associated with several malocclusions and present dental or skeletal components. It represents 95,2% of vertical problems and is responsible of accentuating the curve of Spee. It is a very frequent condition that requires adequate treatment because it can cause periodontal, esthetical or functional problems. A deep overbite can be related to the supraeruption of the mandibular incisors and/or infraeruption of the molars. Therefore, the treatment alternatives include the extrusion of the posterior teeth and/or intrusion of the anterior teeth. The mechanics should be individualized, and the leveling of the curve of Spee by incisors intrusion might play a role in the orthodontic treatment. However, a good torque control is required in order to diminish the risk of root resorption. According to the literature, other treatment options to level the curve of Spee are: a reverse curve archwire in the mandibular arch and an accentuated curve archwire in the maxillary one (Tweed mechanics); a bioprogressive Technique using utility-arch (Ricketts mechanics); three-piece archwire mechanics (Burstone mechanics) and the three-piece archwire with elastics or TMA springs (Shroff mechanics). Segmented mechanics to level the curve of Spee without incisor projection consists in the application of light and constant forces that do not oppose to the extrusive forces of the molars. Cantilevers are used to intrude the canines first, and later, the mandibular incisors. The objective of this presentation is to show the currently technique used in our Orthodontic Department, some case reports and the latest investigations over this topic.

Descritores:

Tooth movement techniques; Overbite; Orthodontic Anchorage Procedures

TL 44

Código do trabalho: Abor 248

Autores:

MELO LS*, REGO MVNN, TEIXEIRA GSS, ALENCAR NLR

PREVALENCE OF ENVIRONMENTAL FACTORS IN THE ETIOLOGY OF CLEFT LIP AND PALATE**Resumo:**

A cleft lip and a cleft palate are manifested during the embryonic period of intrauterine life, associating environmental and genetic factors. The study aimed to determine the prevalence of environmental etiologic factors in cleft lip and palate, when compared with patients without clefts, and also assessing if there is any difference in the prevalence of such etiological factors in relation to the type of cleft (unilateral / bilateral). The study was carried out at São Marcos Hospital (case group) and at Evangelina Rosa Maternity Hospital (control group), through the application of multiple choice questionnaires, the following variables being the analysis criteria: mother's and the father's age, child's gender, type of cleft, heredity, the use of herbicide / pesticide, exposure to X-rays, medicines, food supplements, teas, infections, systemic diseases, alcoholism, smoking and other drugs during the first months of pregnancy. After the collection, the data were organized in tables and subjected to statistical calculations using the Qui-Square test (X^2). The analysis of the variables showed that, regarding environmental risk factors, there was a statistically significant difference between cases and controls for some of the studied factors. Furthermore, no predominance of environmental etiologic factors according to the type of cleft was found. It was possible to conclude that the use of anti-inflammatory drugs, hypothyroidism, lack of food supplements and folic acid were the most prevalent factors in patients with clefts, regardless of the type, whether unilateral or bilateral.

Descritores:

Cleft Lip; Cleft Palate; Risk Factors

P 01

Código do trabalho: Abor 163

Autores:

ESPINOSA DSG*, SOUSA AS, MOREIRA PEO, NORMANDO D.

STABILITY OF THE OPEN BITE TREATMENT THROUGH THE INTRUSION OF MOLARS WITH SKELETAL ANCHORAGE: A SYSTEMATIC REVIEW**Resumo:**

Objective: To evaluate the stability of orthodontic treatment of the open bite through the intrusion of molars, using skeletal anchorage, through a systematic revision of literature. **Methodology:** An electronic search was conducted in nine databases, until April 2017. The selected articles included cephalometric measures of pre-treatment, post treatment and after-care period of at least 1 year. The risk of bias used was the methodological Robins I-tool index. **Results:** 2302 articles was founded but only 6 have fulfilled all the inclusion criteria. After a year of treatment, most of the selected studies reported a recurrence, with mandibular rotation in the clockwise direction of 0.4 °, but after two years of accompaniment, half of the studies included reported an average recurrence of 0.26 °. The overbite had an average decrease in most studies, after the first year of treatment of 0.71 mm and after the second year of accompanying 0.32 mm. When analyzing the vertical position of the molars in relation to the palatine plane, it is verified in all the elected articles that after a year of completion there is an average recurrence of 0.27 mm. **Conclusion:** The stability of the open bite treatment with molar intrusion, it can be considered acceptable, because in the studies selected, the degree of recurrence with mandibular rotation in the clockwise direction was negligible after a year of treatment, and that recurrence still progresses after two years, but at a slower pace. There's a need for long-term studies.

Descritores:

Orthodontic; Open bite; Stability

P 03

Código do trabalho: Abor 019

Autores:

COSTA LA*, CRIVELINI MM, CUOGHI OA, MENDONÇA MR

TITLE: HISTOPATHOLOGICAL EVALUATION OF INDUCED TOOTH MOVEMENT IN RAT MOLARS SUBMITTED TO EXTRUSIVE LUXATION.

Resumo:

Objective: To evaluate the effects of induced tooth movement (ITM) on rat molars related to the time of repair after extrusive luxation (EL) trauma. **Methods:** Sixty three male young adults rats (*Rattus norvegicus Albinus*, Wistar), 45 days old and weighing range of 230-250 were divided into nine groups (n = 7): control (C), EL trauma and follow-up for, 3, 5 or 7 days (T3D, GT5D, T7D), control movement (CM) – MDI for seven days, control device (CD) – MDI device inactive for 7 days, and groups submitted to LE, hold for 3, 5 or 7 days and, then, ITM for 7 days (T3D/M T5D/M T7D/M). After the experimental period, animals were euthanized and longitudinal serial sectioning of 4µm, stained with hematoxylin and eosin, were obtained. Descriptive, semi-quantitative and histomorfometrics analyzes of the right upper first molar were made. The distribution of scores in the groups was compared using the Kruskal Wallis test with multiple comparisons by Bonferroni method and histomorphometric analysis evaluated by Kruskal Wallis test, both with 5% significance level. **Results:** Vascular changes (bleeding) in the periodontal ligament and root resorption were observed more frequently in animals of T3D/M group, on mesial side of distobuccal root, with a significant difference (p). **Conclusion:** When the repair time of the periodontal ligament after LE is not respected for MDI beginning, a greater frequency of root resorption and vascular alterations is observed.

Descritores:

Tooth injuries; Tooth Movement; Models, Animal

P 04

Código do trabalho: Abor 065

Autores:

FIGUEIREDO NC*, ANDRADE I

FRICTIONLESS SEGMENTED MECHANICS FOR CONTROLLED SPACE CLOSURE DURING CORRECTION OF BIMAXILLARY PROTRUSION: CASE REPORT**Resumo:**

This case report describes the treatment of a 30-year-old woman with a skeletal Class I pattern, bimaxillary dentoalveolar protrusion and incompetent lips. The treatment objectives were to reduce the excessive protrusion of both dental arches, to obtain normal canine and incisal guidance, to correct lip incompetence and lip strain on closure and to improve the facial balance. The orthodontic treatment included extraction of all first premolars followed by retraction of canines and incisors with frictionless segmented mechanics and power arms. The total active treatment time was 26 months. The bimaxillary protrusion was successfully corrected without skeletal anchorage devices. The smile line improved, the lips become competent and the patient profile was significantly improved at the end of treatment. Treatment objectives were achieved with excellent esthetic and functional results.

Descritores:

Angle Class I malocclusion; Dental extraction; Corrective orthodontics

P 05

Código do trabalho: Abor 026

Autores:

FIGUEIRÊDO MM*, MANHÃES JR LRC, NAPIMOGA M, CANÇADO RH.

DISSIPATION OF SELF - LIGATING AND CONVENTIONAL BIOMECHANICAL FORCES OF THE BRACKETS BY THE FINITE ELEMENT METHOD**Resumo:**

Knowledge of the dissipation of orthodontic forces through the dental root is of paramount importance in controlling and avoiding the most frequent side effects, external root resorptions. The CAD model was designed with DICOM image reconstruction. Through the finite element methods, with a mesh of 1058803 elements and 1708532 nodes, it was possible to simulate this dissipation of forces in a situation of 3 mm of crowding in the anterior region of the mandible, evaluating different types of orthodontic accessories to a same force applied equivalent to 0.014 " thermoactivated nickel titanium wire. For this, the self-ligating passive bracket ($\mu = 0$), the self-ligating active bracket ($\mu = 0.0450$) and the conventional one with the two types of lashings, the metal alloy ($\mu = 0.0835$) and the elastic ($\mu = \infty$) were tested. Modules of elasticity (Mpa) and Poisson's coefficient, respectively, for the cortical bone (15000-0.3); trabecular bone (1500-0.3); dentin (18600-0.31); periodontal ligament (0.68-0.49); steel (200000-0.3) and thermoactivated Ni-Ti wire (54000-0.3). In the simulation corresponding to the conventional bracket with elastic, the greatest tension occurred at the apex of the crowded incisor and a tensile stress throughout the lingual face and with some compression on the buccal face. With the metal ligation, the tensile stress was observed in the most apical region of the root in the buccal aspect and in the cervical part in the lingual face. There was no tension at apex. In the self-ligating active system was similar to the metal alloy. Self-ligand passive has the smallest tensions compared to other systems. In this way, the systems using active metal alloys and self-alloys showed very similar results even with a difference of 100% in the coefficient of friction. The passive self-ligating bracket was the one that generated the least tension. The elastic tie system is of greater tension.

Descritores:

Orthodontic Brackets; Root Resorption; Finite Element Analysis

P 06

Código do trabalho: Abor 033

Autores:

PINHEIRO DD*, PIMENTA-JUNIOR B, PEREIRA ALP, GURGEL JA.

THE USE OF STOPS IN THE SELF-LIGATION SYSTEM**Resumo:**

The use of self-ligation brackets and thermoactivated wires has shown a significant increase in the current Orthodontics. It is necessary to observe some criteria of use for better use of these innovations. The stops are small accessories made of stainless steel, to prevent or direct the movement of the wires mainly in the initial phase of the treatment. The objective of this study is to report in a simple and illustrative way, the static and dynamic use of stops with the following purposes: preventing injuries, aiding tooth movement and increasing the orthodontic appliance activations. In this work, there will be cited 10 ways of using stops, which exemplify ways to stabilize the orthodontic arch, maintain or assist in positioning during dental treatment. The use of stops in the self-ligation system has a relevant importance, since it directs some movements at the beginning of the treatment, facilitating the work in other phases and assisting in a more efficient way the dental movement, optimizing the mechanics of orthodontic treatment.

Descritores:

Orthodontic Brackets; Orthodontic Wires

P 07

Código do trabalho:: Abor 034

Autores:

HERKRATH FJ*, ALVES PLN, VETTORE MV, HERKRATH APCQ

RELATIONSHIP BETWEEN ORTHODONTIC TREATMENT NEED, SELF-ESTEEM AND ORAL HEALTH-RELATED QUALITY OF LIFE**Resumo:**

The objective of the study was to evaluate whether self-esteem moderates the relation between orthodontic treatment need and oral health-related quality of life (OHRQoL). This cross-sectional study involved 406 12-year-old schoolchildren from an urban area of Manaus, Amazonas. Data were collected through the application of questionnaires and intraoral clinical exams. Socioeconomic and demographic characteristics, dental pain and dental aesthetic index (DAI) were assessed, as well as Rosenberg self-esteem scale and Child Perception Questionnaire (CPQ11-14) were applied. Initially, a multiple linear regression model was fitted, including the interaction term between DAI and self-esteem, evaluating the adjusted effect between the orthodontic treatment need, self-esteem, and OHRQoL. The interaction was statistically significant ($p=0.021$). Then, the OHRQoL slopes were estimated according to the score variation of the DAI, holding the moderator variable, self-esteem, constant at five values within its range, using the margins post-estimation command of Stata 14. Adjusted predictions for each value self-esteem were graphically plotted. The analyzes of the estimated values of CPQ11-14 and their respective confidence intervals showed that individuals with lower self-esteem presented worse OHRQoL when $DAI \leq 31$. However, for greater normative orthodontic treatment need, self-esteem did not modify the effect of DAI on OHRQoL.

Descritores:

Malocclusion; Quality of life; Self concept

P 08

Código do trabalho: Abor 038

Autores:

MELO LS*, REGO MVNN, RUELLAS ACO

NON-SURGICAL TREATMENT OF MAXILLARY TRANSVERSE DEFICIENCY IN YOUNG ADULT USING MARPE**Resumo:**

Transverse maxillary deficiency is a malocclusion that presents a high prevalence in orthodontic patients, which is easily corrected during the primary teeth, mixed dentition and early permanent dentures with orthopedic maxillary expansion. However, as the patient grows, the maturation and progressive interdigitation of the mid-palatal suture occurs, and promotes an increase in the mechanical resistance of this structure, reducing orthopedic expansion and increasing the buccal tipping of anchorage teeth. As a possibility to potentiate the orthopedic effect of expansion in adult patients, the MARPE (Miniscrew-assisted rapid palatal expander) technique was developed. The present study describe the clinical case of a patient at the end of the growth, 17 years and 10 months, with maxillary atresia resulting from a prolonged digital sucking habit, treated with the MARPE technique. An 11 mm Hyrax palatal expander was used associated with 4 miniscrews next to the palatine suture in the posterior region of the palate. On the eighth day, it was possible to visualize the midline diastema, the full expansion was extended up to 15 days (7,5mm). To evaluate the orthopedic and orthodontic effects, as well as changes in the dimensions of the upper dental arch, cone beam computed tomography and digital models were obtained before and after the expansion. The results confirmed the efficiency of MARPE technique in the treatment of transverse maxillary deficiency in patients at the end of growth or adults, due to the great orthopedic effect.

Descritores:

Miniscrew-assisted rapid palatal expander; transverse maxillary deficiency

P 09

Código do trabalho: Abor 040

Autores:

ALVIM TLL*, ONOFRI PC, NEVES LS, DRUMMOND AF

ORTHODONTIC-RESTORATIVE TREATMENT IN A PATIENT WITH AVULSION OF MAXILLARY CENTRAL INCISORS - CASE REPORT**Resumo:**

The purpose of this study is to describe the clinical case of a young patient who suffered avulsion of the upper central incisors treated with a combined orthodontic and restorative approach. C.B.R.F., 13 years old, male, sought care after suffering trauma with a consequent avulsion of the upper central incisors. The treatment chosen for the patient was the mesialisation of the anterior teeth to close the spaces of the upper incisors with the lateral incisors and the extraction of the elements 35 and 45, with posterior restoration of the lateral incisors, canines and premolars. At the end of treatment, the edentulous spaces of the teeth 11 and 21 were closed and occupied by elements 12 and 22 and the upper canines occupied the space of the lateral incisors. Intercuspitation, overjet and satisfactory overbite were observed. The treatment was completed in 6 ½ years. After 4 years of orthodontic treatment, pre-fabricated facets (Componner - Coltene; Altstätten, Switzerland) were performed on elements 12, 13, 14, 22, 23 and 24. The results obtained were aesthetically and functionally satisfactory. **CONCLUSION:** Orthodontic mechanics of anterior space closure combined with pre-fabricated composite resin veneers is an effective therapy option for patients who have avulsion of maxillary central incisors.

Descritores:

Avulsion; Mesialisation; Facets

P 10

Código do trabalho: Abor 041

Autores:

LAYSA DA CUNHA BARROS*, CELSO GARCIA RODRIGUEZ, MARSHA LISA SCHLITTLER VENTURA, HÍDEO SUZUKI.

PURE ORTHOPEDIC MOVEMENT IN REHABILITATION TREATMENT IN PATIENTS WITH MAXILAR DEFICIENCY AND AMELOGENESIS IMPERFECTA**Resumo:**

Maxillary Deficiency is associated, for the most part, to a lack of projection of the Zygomatic bone, being able to present a maxillary atresia; This type of disability is one of the characteristics present in patients who present Pattern III. The indicated treatment consists of rapid expansion of the maxilla associated with reverse traction, but this orthopedic movement is limited when the circumaxillary sutures have already reached their maturation, where the treatment becomes multidisciplinary involving Orthodontics and Buco maxillofacial Surgery. However, more current treatments involving the use of orthodontic mini-implants maybe indicated. The objective of this study is to present a clinical case of an individual of the masculine gender, with 13 years and 03 months of age and with Amelogenesis Imperfecta. The conduct of the case consisted of Micro-Implant Assisted Rapid Palatal Expanders (MARPE), associated with a facial mask to perform maxillary protraction and minimize existing skeletal discrepancy, as well as conventional orthodontic treatment for upper canine trapping and preparation for future prosthetic rehabilitation. CT scans of the medial palatine suture region were performed before and after the disjunction procedure. It was concluded that the conduct was adequate for the case, as there were no undesirable movements and that the maxillary traction was effective, leading to a positive alteration of the facial appearance, returning also a suitable posterior vertical dimension for the rehabilitation treatment against the diagnosis Amelogenesis Imperfecta.

Descritores:

Amelogenesis Imperfecta; Rehabilitation; Orthodontics

P 11

Código do trabalho: Abor 044

Autores:**EVALUATION OF QUALITY CONTROL IN STANDARDIZATION OF INITIAL FORCE RELEASED BY ORTHODONTIC ELASTICS CHAIN****Resumo:**

This study valued the standardization of the initial strength delivered by elastomeric chains of different commercial brands. They were tested 762 samples of colorless middle size elastomeric chains of the brands Morelli®, Uniden® and Eurodonto®, of different lots. The elastics were distributed in 6 different groups: Group M, Group U and Group E, with 2 lots for each group. The elastics were maintained in a "jig" of 7 x 7 cm acrylic one that was fixed in a 55 X 15 cm wooden base. The elastics were activated in 50 % of his initial lengths and the released initial force was measured through a digital precision dynamometer. The tests of Kolmogorov-Smirnov were used and "t" of Student with 5 % of signification for both tests. A confidence interval was built to investigate the percentage of elastic samples that presented standardized released initial force. The results showed significant difference between the middle initial force when 1 and 2 was released of 336,84g and 270,72g of the shares, respectively, of the brand U. There was no significant difference between the shares of the brand M presenting middle initial force of 310,31g and 312,77g and of brand E with middle initial force of 378,42g and 377,91g. The groups M, U and E presented the percentages of 8,7 %, 4,3 % and 11,4 %, respectively, of elastic samples releasing standardized respected initial force. It is possible to end that the groups M and E presented standardized initial force, however three groups presented low percentage of elastic samples with standardized initial force.

Descritores:

Tensile strength; Elastomers; Elasticity

P 12

Código do trabalho: Abor 045

Autores:

DAYUBE TRFS*, MENEZES EBC, BITTENCOURT MAV, MACHADO AW

DIFFERENT VERTICAL POSITIONS OF CENTRAL INCISORS INFLUENCE THE AESTHETIC PERCEPTION OF THE SMILE?**Resumo:**

The aim of this study was to evaluate the perception of smile aesthetics between orthodontists and lay people in relation to different vertical positions of upper central incisors in full face and approximate smile analyzes. Frontal photographs of the smiles of two adult women were used. The photographs were edited to create a symmetrical image, with the gingival margin level of maxillary canine equal to the central incisors and 1mm incisal step between the central and lateral incisors. These images were then manipulated to create six different vertical positions of central incisors with 0.5mm increments and were assembled in an album, which was delivered to 57 orthodontists and 57 laypeople, to evaluate the attractiveness of the images using a visual analogue scale. It was found that the best evaluated smiles presented the gingival margins of the corresponding central incisors 0.5 mm below the line of the gingival margins of the canines and an incisal step between the central and lateral incisors of 1 mm to 1.5 mm. The worst smiles showed the gingival margins of the central incisors 1mm above or 1.5mm below the gingival margins of the canines and no step between the central and lateral incisors or a 2.5mm step. It is concluded that the vertical position of the upper central incisors significantly affected the perception of smile aesthetics, and the slightly extruded ones were preferred aesthetically in relation to the intruded ones.

Descritores:

Smile; Aesthetic ; Orthodontics

P 13

Código do trabalho: Abor 046

Aurores:

SOARES LGP*, BEZERRA MCSM, BITTENCOURT MAV, HABIB FAL

COMPARATIVE ANALYSIS OF THE PHOTOBIOMODULATORY EFFECT BETWEEN LED AND LOW-LEVEL LASER IN ORTHODONTIC PAIN CONTROL: CLINI**Resumo:**

Orthodontic movement triggers controlled inflammation, which often results in pain and impairs patient acceptance of treatment. In order to minimize this problem, phototherapy with low-level laser therapy (LLLT) or LED has been reported in Orthodontics due to its biomodulating effects, reducing inflammation and, consequently, pain, without altering movement. However, as there are few studies using LED therapy, the aim of this study was to evaluate the efficacy of LLLT and LED photobiomodulation in pain control during the tooth separation process. Sixty volunteers (mean age: 24.1 years) were used and randomly divided into three groups: G1 (LED, AsGaAl, λ 850 nm, 150 mW, 20.0 J / cm², time of 64 sec per session), G2 (LLLT, AsGaAl, λ 780 nm, 70 mW, 20.0 J / cm², 4 min time per session) and G3 (Control). All groups were submitted to orthodontic separation and the pain level was measured by means of a visual analogue scale (VAS), immediately (T1), with 48 (T2), 96 (T3) and 144 hours (T4), after the procedure. Phototherapy was performed every 48 hours, until the sixth day, when the separator was removed and the last measurement was performed. Pain levels in the irradiated groups were lower, at all times, with statistical significance (p

Descritores:

Phototherapy; Toothache; Orthodontics

P 14

Código do trabalho; Abor 052

Autores:

SILVEIRA GS*, PANTUZO MCG, PINTO LSMC, OLIVEIRA DD

REVERSING THE TREATMENT OF A TRANSFERRED CLASS III PATIENT FROM SURGICAL ORTHODONTICS TO A CAMOUFLAGE WITH SLIDING JIGS

Resumo:

The objective of this presentation is to illustrate the orthodontic treatment of a 35-year-old male patient with Angle Class III malocclusion and anterior open bite, transferred from another professional who conducted orthodontic preparation for orthognathic surgery. In the initial transfer consultation, the patient reported having changed his mind and did not want to submit to the additional risks and financial costs of the surgical procedure. Aware of the difficulty of the treatment without the surgical aid, he insisted that he would do what he could to avoid this procedure. After careful evaluation of his transfer documentation, orthodontic treatment of camouflage was proposed using sliding jigs and intermaxillary elastics. The patient was very cooperative and the mechanics worked properly. As a result, the molars Class I and canine keys was obtained on both sides, and the anterior open bite correction was obtained. Composite build-ups were performed for anatomic contouring of the upper lateral incisors that had reduced mesiodistal diameter and to obtain adequate overjet and overbite. The results were stable 4 years post treatment.

Descritos:

Malocclusion, Angle Class III; Open bite; Orthodontics, corrective

P 15

Código do trabalho: Abor 054

Autores:

MACHADO JIAG*, ARAUJO YC, LAU GWT, REGO MVNN

COLOR STABILITY OF ESTHETIC COATINGS APPLIED TO NICKEL-TITANIUM ARCHWIRES**Resumo:**

The objective of this study was to evaluate color changes on the surface of esthetic nickel-titanium archwires coated with Teflon (Ortho Organizers, USA) or epoxy resin (Tecnident, Brazil) after immersion in staining solution. Twelve 20-mm-long wire segments were used for each type of coating, which were mounted as two test specimens with a width of 7 mm each. The buccal surface of the archwires was evaluated for fluorescence and color measurements both at baseline and after immersion in a staining solution for 21 days using the VITA Easyshade® Compact spectrophotometer. Differences in total color change according to coating type were compared using an independent samples t-test (p).

Descritores:

Orthodontic wires; Dental esthetics; Fluorescence

P 16

Código do trabalho: Abor 196

Autores:

DARLLY JANNE ALVES AZEVEDO, GUSTAVO TIRADO RODRIGUES, PAULO SÉRGIO MARTINS SEABRA

ORTHODONTIC TREATMENT IN AN ADULT PATIENT WITH A HISTORY OF TRAUMATIC AVULSION: CASE REPORT**Resumo:**

The search for orthodontic treatment by adult patients is increasingly frequent, either for aesthetic or functional reasons. In these cases, depending on the previous condition, multidisciplinary approaches may be necessary. One of the possible situations that we must deal with is the history of dental avulsion in childhood with subsequent reimplantation causing modifications that must be followed closely. The present study addresses the orthodontic treatment of a 29-year-old adult, who in his childhood suffered avulsion followed by reimplantation of unit 11, having undergone periodontal / endodontic changes (cervical external radicular resorption - CERR), esthetics (color change) and still had suspected ankylosis. The patient also had gingival retractions with radicular exposure in the vestibular region, in the four quadrants. The purpose of the treatment was to move and maintain the unit for as long as possible, thus preserving the bone level of the region for future rehabilitation through implant and prosthesis, as well as the supporting tissues. The success of the treatment in patients with units affected by CERR two decades after the traumatic event, involved the multidisciplinary between, orthodontics, periodontics and endodontics in the planning.

Descritores:

Tooth Avulsion; Tooth Replantation; Root Resorption

P 17

Código do trabalho: Abor 056

Autores:

LUCINEIDE LIMA DOS SANTOS, RODRIGO VIEIRA CAIXETA, SANDRINE BITTENCOURT BERGER, RICARDO DANIL GUIRALDO

IN VIVO EVALUATION OF THE ENAMEL SURFACE ROUGHNESS AFTER REMOVAL OF BRACKETS BONDED WITH DIFFERENT CEMENTING MATERIALS**Resumo:**

The aim of this study was to evaluate the surface roughness of tooth enamel using roughness before and after polishing with different cementing materials. Fifteen orthodontic patients were selected for the study. For each patient, the teeth on one side of the mouth were randomized to paste the bracket with Transbond XT (n = 15). Teeth on the other side were bonded with Vitremer (n = 15). All teeth were finished and polished with aluminum oxide discs. At the conclusion of orthodontic treatment, the metal brackets have been removed and dental replica (before and after polishing of the teeth) were obtained with epoxy resin. Three measurements of surface roughness were made in different directions with an angle of 120° therebetween, and a medium for each replica tooth was calculated. Data were statistically evaluated roughness by repeated-measures analysis of variance. After removal of cements with Sof-Lex disks, in both groups, it was observed that the average roughness of the enamel surface was significantly less when compared with the initial surface roughness of the enamel. The aluminum oxide polishing disk system provided a smaller surface roughness of enamel compared to the initial roughness before the start of treatment, regardless of the cementing material used.

Descritores:

Dental enamel; Dental polishing; Dental debonding

P 18

Código do trabalho: Abor 058

Autores:

ALMEIDA PLN*, NEVES JG, VEDOVELLO SAS, VEDOVELLO FILHO M.

STRENGTH DEGRADATION OF INTRAORAL ORTHODONTIC ELASTICS BANDS: IN VITRO STUDY**Resumo:**

The present study evaluated the initial strength and the degradation through time of the medium elastics of diameter 3/16" and related it to the ideal time of use and the dimensional alteration between the different commercial brands (Uniden, Orthometric e Aditek). The initial readings of each elastic were performed in the machine Instron 4411 and had the initial strength released when stretched to 26mm (mandibular distance in resting position) and to 44mm (mandibular distance in maximum opening of mouth). Through a pneumatic device, the elastics were then distended to 26mm, subsequently were lengthened to 44mm and returned to 26mm, simulating the mandibular movements of opening and closure. The data were submitted to analysis of variance and Tukey test with significance level of 5%. The results showed that only in distance of 44mm occurred an estatistically significant alteration (p).

Descritores:

Degradation; Strength; Intraoral Elastic

Fonte – CNPq

P 19

Código do trabalho: Abor 059

Autores:

VEIGA PBQ*, MATTA ENR, FIGUEIREDO LM, FERREIRA NETO JJ.

EFFECTS OF ENVIRONMENTAL CONDITIONS ON THE FORCE RELEASED BY LATEX ELASTIC**Resumo:**

This study evaluated the influence of environmental conditioning on the initial strength released by intraoral orthodontic latex elastics. They were tested 300 samples of medium strength latex elastics, size 5/16 "Morelli®" brand. The elastics were distributed in 2 groups: Group A, kept in the original packaging, Group B, exposed to the environment. The elastics were maintained in a "jig" of 7 x 7 cm acrylic one that was fixed in a 55 x 15 cm wooden base. The elastics were activated in 50 % of his initial lengths and the released initial force was measured through a digital precision dynamometer. The tests of Kolmogorov-Smirnov were used and "t" of Student with 5 % of signification for both tests. A confidence interval was built to investigate the percentage of elastic samples that presented standardized released initial force. The results showed that there was no significant difference between the mean initial force released of 71.60 g and 71.05 g between groups A and B, respectively. Groups A and B presented the percentages of 20% and 14.7%, respectively, of elastic samples releasing initial strength considered standardized. It can be concluded that in the present study the elastics tested did not have an environmental influence in relation to the initial force released and presents a low percentage of initial force release considered standardized.

Descritores:

Tensile strength.; Elastomers.; látex

P 20

Código do trabalho: Abor 066

Autores:

CHAVES PRB*, PORTO ACA, REGO EB, ARAÚJO TM

STABILITY OF LONG-TERM ORTHODONTIC TREATMENT IN DIFFERENT FACIAL TYPES.**Resumo:**

The stability of orthodontic treatments has been the object of many studies because, once the correction is completed, the teeth tend to return to their initial positions, characterizing the relapse. The aim of the present study was to evaluate post treatment dental changes in dolichocephalic (G1), brachycephalic (G2) and mesocephalic (G3) patients. In the upper and lower dental arches, the following measurements were performed: intercanine distance (DIC), inter first premolar (DIP1), inter second premolar (DIP2), intermolar (DIM), overbite, overjet and index of irregularity of the incisors. These measures were evaluated in the pre-treatment period (T1), immediate post-treatment period (T2) and long-term follow up, with a mean of 24.6 years (T3). Increased transverse distances (p

Descritores:

Overbite; Orthodontics; Recurrence

P 21

Código do trabalho: Abor 067

Autores:

KARAM LCG*, ALVES FV, BRAGA E, VOGEL CJ

ALTERATIONS OF THE LONG-TERM DENTAL ARCADE OF ANGLE CLASS I PATIENTS, TREATED WITH AND WITHOUT EXODONTIAS**Resumo:**

The stability of orthodontic treatment results interest both professionals and patients. However, once the treatment is finished, the teeth tend to return to their initial positions, characterizing the recurrence of the malocclusion. This study aimed to evaluate the long-term changes in the dental arches of Angle Class I malocclusion patients treated with and without extractions of premolars. It was used digitized orthodontic models of 20 patients. Of these, ten individuals were treated with extraction of first premolars, while the others, treated without extractions. Measurements were made on the dental arches in the anteroposterior and transverse directions, and the index of irregularity of the incisors was calculated. The measures were evaluated in the pre-treatment period (T1), immediate post-treatment (T2) and long-term (T3) treatment, with a mean of 29 years after the end of treatment. In the long term, in both groups evaluated, there were an increasing in the index of irregularity of the incisors, a decreasing depth of archways, contraction in the region of upper and lower second premolars, and lower first premolars. In addition, a contraction in the region of the first molars, only in the group treated with extractions (p

Descritores:

Stability; Malocclusion Angle class I; Dental models

P 22

Código do trabalho: Abor 070

Autores:

RITZMANN M*, GARBUI I, SANTOS ECA, NOUER PRA

EVALUATION OF SUPERPOSITION ARCH ANALYSIS OCCLUSOGRAM COMPARING WITH CLINICALLY NORMAL OCCLUSION**Resumo:**

Studies performed by Andrade resulted in the development of an occlusogram from the cephalogram. It serves as a reference for the diagnosis and follow-up of orthodontic treatment, proving to be a simple and effective method. This study aimed to validate the method proposed by Andrade comparing the arch form diagrams obtained through the technique with dental casts in a sample of 38 clinically normal patients. The dental casts were scanned in a 3D scanner. The tracing and the occlusogram were done on the cephalometric radiographs, according to the author's technique. In the occlusogram, transverse measurements were made on predetermined points between canines, 1st and 2nd premolars and 1st molars. In the digitized model, the same measurements were made at the same points, with the aid of suitable software. The measurements obtained through the two methods were submitted to statistical analysis. The examiner's error was also calculated through Dahlberg's analysis. Student's t test showed no statistically significant difference ($p>0.05$) in distances between right and left canines and premolars. Between the 2nd premolars and 1st molars there was a statistically significant difference. The diagram by superposition of arches showed agreement with the models in the measurements taken in the region of canines and 1st premolars, whereas in the region of 2nd premolars and 1st molars this agreement did not occur.

Descritores:

Orthodontics; Dental Arch; Mandible

P 23

Código do trabalho: Abor 071

Autores:

JOSELI SANTOS DE ALMEIDA GIUNCO, DR. MÁRCIO RODRIGUES DE ALMEIDA, D. RENATO RODRIGUES DE ALMEIDA E DR. ALCIDES GONINI JR

EVALUATION OF THE ATTRITION AND ROUGHNESS OF SUPERELASTIC AND THERMOACTIVATED NICKEL-TITANIUM WIRE: AN IN VITRO STUDY

Resumo:

Aim: to evaluate the friction force in slip systems as well as the surface roughness of three different orthodontic strands of the NiTi alloy with diameter 016 "x.022". **Material and Method:** Three different yarns were evaluated: 1) Blue-Ti Superelastic NiTi (Orthometric- Marília SP); 2) Niti Superelastic Black (Ortho-Orgnizers - USA) and 3) NiTi Thermal Smart (Orthometric Marília SP). Ten samples of 30 mm each were tested. The wires were adapted in a self-ligating bracket (Uclip, slot 0,22 of Orthometric- Marília SP) of lower incisor, without angulation and with an angle of 5°. The test machine used was the EMIC, with load cell of 05N, with speed of 5.00 / min and 10mm of displacement. The rugosimeter used was the Mitutoyo SJ-410. The Kolmogorov-Smirnov test was used to check for normality. ANOVA followed by the Tukey test, for comparison between groups was used with $p > 0.05$. **Results:** The friction at 0° and at 5° of angulation had a respective average of: 0.065-0.238 Mpa for Blue wire, 0.174-0.253 Mpa for Black wire and average of 0.244-0.427 Mpa for the Term. As for surface roughness (Ra) the results were: Black (0.2545), Blue (0.2695) and Thermo (0.3582). **Conclusion:** Of the three types of gauge NiTi yarns (0.16 "x 0.22 ") NiTi superelastic Blue presented lower friction, with angulation at 0° and 5°, followed by Black and Activated Thermo. As for the roughness test, the Black ti and Blue ti wires presented smaller average roughness values followed by the Niti Thermo activated wire, but with no statistically significant differences between them.

Descritores:

Attrition; Orthodontic wires ; Mechanical phenomena

P 24

Código do trabalho: Abor 076

Autores:

CARACAS GCS*, BEZERRA PBS, LACERDA TM

ORAL REHABILITATION AFTER COMPENSATORY ORTHODONTIC TREATMENT IN PATTERN III ADULT PATIENT

Resumo:

The aim of this poster is to illustrate a non surgical treatment of a pattern III adult patient malocclusion to enable prosthetic rehabilitation. This case report describes a pattern III patient with mandibular protrusion and an Angle class III subdivision right malocclusion with upper and lower midline deviation. In adult patients with severe skeletal discrepancies the best treatment should be orthognathic surgery for better results and stability. However, some patients don't agree with the surgery because of its costs and risks. The compensatory treatment is an alternative for moderate discrepancies. In this case report, the patient choose the compensatory treatment. At the end of the orthodontic treatment we obtained a classe I relationship in the canines, coincident midlines and a functional occlusal relationship. After that, the patient was able to do the prosthetic rehabilitation with dental implants at the edentulous areas.

Descritores:

Malocclusion, Angle Class III; Prognatism; Mouth Rehabilitation

P 25

Código do trabalho: Abor 078

Autores:

VIEIRA EP*, WATANABE BSD, PONTES LF, MAIA LC.

THE EFFECT OF BRACKET SLOT SIZE ON THE EFFECTIVENESS OF ORTHODONTIC TREATMENT: A SYSTEMATIC REVIEW**Resumo:**

To assess, by means of a systematic review, whether there exists scientific evidence of the influence of 0.018-inch or 0.022-inch bracket slots on treatment time, efficiency of space closure, efficiency of alignment, quality of orthodontic finishing, level of discomfort, and level of root resorption. The PubMed, Bireme, MEDLINE, Scopus, Web of Science, Open Grey, and Google Scholar databases were searched, with no date and language restrictions, for randomized clinical trials and controlled clinical trials, using controlled terms related to bracket slots. After the selection and removal of duplicate articles, the risk of bias was assessed and the data from the included studies were extracted by two independent researchers. The search yielded 2,640 studies. After the application of the eligibility criteria, eight articles were fully read and four studies were selected for the qualitative systematic review. Owing to the heterogeneous data, a meta-analysis could not be conducted. While most studies indicate a shorter duration of treatment in patients with 0.018-inch bracket slots, no available data confirm the higher efficiency of one system over the other. The biases in the studies do not allow for a reliable conclusion and, therefore, new studies with a better methodological design are needed.

Descritores:

Orthodontics; Orthodontic brackets; Treatment outcome

P 26

Código do trabalho: Abor 081

Aurores:

WEISSHEIMER F*, DEMARCO EA, FIRMINO LB, FONTANIVE VN

PREVENTIVE AND INTERCEPTIVE ORTHODONTICS IN THE SUS**Resumo:**

In Brazil, the main diseases that affect oral health are: dental caries, periodontal disease and malocclusion. According to the National Oral Health Survey (SB Brasil 2010) there is a prevalence of malocclusion around 66.7% in deciduous dentition (5 years) and 37.7% in mixed and permanent dentition (12 years). The inclusion of malocclusions such as public health problem it is not only due to its increased prevalence in recent years, but, above all, the impact on quality of life of affected individuals. The attention paid to malocclusions is usually focused and restricted to the individual level, being supplied mostly by the private sector. With the aim to propose public policies to change that reality will be presented a program of orthodontic intervention in preventive and interceptive level being held in six Basic Health Units (UBS) of the Conceição Hospital Group (GHC), institution linked to the Ministry of Health. This program is accomplished through matrix support, with the presence of an orthodontist who participates in the discussion, planning and joint execution of the case with the oral health team of the Units involved. This method of intervention promotes in addition to the reduction of the high levels of malocclusions verified, the training of a large number of professionals, serving as a factor of propagation and multiplication of the results.

Descritores:

Orthodontics, Preventive; Public Policies; Unified Health System

P 27

Código do trabalho: Abor 082

Autores:

TREVISAN MF*, CORRÊA MEC, VARGAS-FERREIRA F, FREITAS MPM

ASSOCIATION BETWEEN TRAUMATIC DENTAL INJURIES AND MALOCCLUSION: IS THERE?**Resumo:**

The aim of this study was to investigate if there is an association between traumatic dental injuries (TDI) and malocclusion in adolescents from southern Brazil. A preliminary cross-sectional study was conducted in 379 adolescents aged 11 to 14 years old from São Marcos - RS. The research instruments used were a semistructured questionnaire on sociodemographic aspects (gender, age, skin color, family income and maternal schooling), answered by those responsible, and intraoral clinical examination (traumatic dental injuries - Andreasen: dental caries - WHO and malocclusion - Dental Aesthetic Index). Statistical analysis included Chi-square test (p). It was concluded that TDI is prevalent in the studied age group, showing association with maxillary overjet, spacing and crowding in the incisor region, with influence of maternal schooling.

Descritores:

Traumatic dental injuries; Adolescents; Malocclusion

Fonte: CAPES

P 28

Código do trabalho: Abor 083

Autores:

CORRÊA MEC*, TREVISAN MF, VARGAS-FERREIRA F, FREITAS MPM

MALOCCLUSION IN ADOLESCENTS OF SOUTHERN BRAZIL: INVESTIGATING PREVALENCE AND ASSOCIATED SOCIODEMOGRAPHIC FACTORS

Resumo:

The aim of this study was to investigate the prevalence and socio-demographic factors associated with malocclusion in adolescents of southern Brazil. A preliminary cross-sectional study was conducted with 379 adolescents from São Marcos - RS, Brazil, aged 11 to 14 years old. The research instruments used were a semi-structured questionnaire on socio-demographic aspects (gender, age, skin color, family income and maternal schooling), answered by those responsible, and intraoral clinical examination, in order to determine the presence / absence of malocclusion, according to DAI - Dental Aesthetic Index. Statistical analysis included Poisson regression with robust variance, p It can be concluded that malocclusion is prevalent in adolescents in the studied age group, especially among the youngest and with average family income. Based on this, it is necessary to establish preventive and / or curative measures at the earliest ages, covering both public health services and private clinics.

Descritores:

Adolescents; Prevalence; Malocclusion

P 29

Código do trabalho: Abor 085

Autores:

MARIA CECÍLIA SANDES SEIXAS VIEIRA; FLAVIANA ALVES DIAS; PAULA VANESSA P OLTRAMARI-NAVARRO; THAIS MARIA FREIRE FERNANDES

ABANDONMENT OF DELETERIOUS ORAL HABITS AND CORRECTION OF ANTERIOR OPEN BITE**Resumo:**

The objective of this study is to evaluate the abandonment of the deleterious habit with the use of devices for correction of anterior open bite (AOB) and to correlate the abandonment of the deleterious oral habit and correction of the AOB with the different devices (spur, chinstrap, fixed degree and degree removable). Seventy two children with AOB greater than 1 mm, Angle Class I molar relationship, mixed dentition, aged 7 to 10 years and absence of posterior crossbite were selected to evaluate the presence of deleterious oral habits and early treatment of AOB with four different devices. Orthodontic documentation was performed before (T1) and after one year (T2) of treatment for observation of the changes related to AOB. To evaluate the presence of deleterious habits, questionnaires pre-treated with the control, were applied in the process, the follow-up was carried out to observe if they were abandoned. All the patients presented improvement in the overbite after one year of treatment. The dropout rates were higher for the fixed (91.3%) and removable (80%) palatine grades. An average overbite correction (T2-T1) was 3.67 mm in patients who abandoned the habit and 1.97 mm in those who persisted, showing that oral habits are related to the severity and perpetuation of the previous open bite when not removed at an early age.

Descritores:

Open bite; Interceptive orthodontics; Habits

P 30

Código do trabalho: Abor 069

Autores:

WALTER IARED (IARED W);CRISTIANE BARROS ANDRÉ (ANDRÉ CB);MARCUS VINÍCIUS NEIVA NUNES DO REGO (REGO MVNN)

PALATE THICKNESS MEASUREMENT FOR THE SUCCESS WITH MINI-IMPLANTS-ASSISTED RAPID PALATAL EXPANSION (MARPE)**Resumo:**

Mini-implants- assisted rapid palatal expansion has been indicated as a viable option about the treatment of maxilla disjunction in patients with finalized growing, considering the possibility of disjunction with less dental effects and no surgery. The fixation of mini-implants in palate near palatine suture transfer the strength of the jackscrew for maxilla resistance center, increasing the mechanical action of the appliance and reaches sutural palatine separate without the need of surgery. In order to prevent adverse effects as lack of biomechanical control can be leading to asymmetric results or even to impossibility the disjunction is essential understanding of the best position of the jackscrew and the rings will receive the mini-implants, as well the bicortical insertion of mini-implants randomly installed to palatine suture. Knowledge of the distance between the bony cortical of palate to base of the nose, as well as the thickness of soft tissue on the palate, is essential for choosing the length of the mini-implants, also for individualizing the device design. Volumetric tomography is an accurate method to measure structures of interest for decision making in the individualization of mini-implants.

Descritores:

Orthodontic, Palatal expansion technique, Adult, MARPE, Microimplant-Assisted Rapid Palatal Expander, Cone-Beam Computed Tomography

P 31

Código do trabalho: Abor 089

Autores:

CRUZ CCKS*, HENRIQUES RM, BITTENCOURT MAV, BARBOSA MC

ORTHODONTIC TREATMENT OR DENTAL WEARS FOR DENTAL VENEERS INSTALLATION: PATIENT PREFERENCES**Resumo:**

Psychosocial perceptions about facial aesthetics are the major influences for the search for dental treatment, orthodontic or restorative. Effective communication between the professional and the patient is of great importance in order to recognize the patient's expectations about the treatment. The objective of this study was to evaluate the preference of university students, without technical knowledge about dentistry, between orthodontic or prosthetic treatment for the correction of an unsightly smile. This study was submitted and approved by the Research Ethics Committee of UFBA and the sample consisted of 202 lay university students who were invited to fill out a questionnaire containing social indicators and knowledge about dental facets. They should also analyze intraoral photographs of a patient with misaligned teeth and a disharmonious smile, and choose between orthodontic or prosthetic treatment as his preferred solution for the problem. About the knowledge about porcelain veneers or contact lenses, 63% reported having already heard about treatment in all social indicators surveyed. The largest number of respondents (62.5%) opted for orthodontic treatment. However, a smaller portion (37.5%), but still clinically significant, of the population interviewed, opted for prosthetic treatment. Then, it was possible to identify the more immediate character of a portion of the current population, mainly of the male gender, in the sociocultural level approached.

Descritores:

Corrective Orthodontics; Dental Veneers; Patient Preference

P 32

Código do trabalho:: Abor 093

Autores:

SANTANA LG*, BARROS MMM, ANDRADE I

SKELETAL CLASS III, ANTERIOR OPEN BITE AND SEVERE CROWDING TREATED WITH ASYMMETRIC EXTRACTION AND ORTHOGNATHIC SURGERY

Resumo:

This case report describes the treatment of a 20-year-old woman with a skeletal Class III pattern, anterior open bite and severe crowding. The treatment objectives were to achieve Class I molar relationship, to correct the anterior open bite and to release the severe crowding. The orthodontic treatment included extraction of 12, 22, 16, 34 and 44 and orthognatic surgery. The skeletal Class III and open bite, and the severe crowding were successfully corrected as planned. Treatment objectives were achieved with excellent esthetic and functional results.

Descritores:

Angle Class III malocclusion; Tooth extraction; Corrective orthodontics

P 33

Código do trabalho: Abor 095

Autores:

BIANCA BRAVIM, ROBERTO PRADO, SÉRGIO GONÇALVES

EVALUATION OF EXPANSION OF NASAL CAVITY AND SEPTO NASAL DEVIATION IN PATIENTS SUBMITTED TO MAXILAR EXPANSION**Resumo:**

The ortho-surgical expansion of the maxilla has helped to solve one of the major problems in orthodontic treatments: transverse maxillary deficiency. Several surgical techniques have been proposed over the years with the objective of solving this problem efficiently, with postoperative stability and low surgical morbidity. The objectives of the present study were to evaluate the nasal septum deviation as well as nasal cavity expansion in patients submitted to ortho-surgical maxillary disjunction using cone beam tomography. Ten patients were selected and a cone beam CT scan was performed preoperatively and postoperatively. The technique used to perform the maxillary expansion was based on a horizontal osteotomy of the maxilla with rupture of the lateral wall of the piriformis bilaterally and the zygomaticomaxillary process and a vertical osteotomy in the region between the central incisors, no osteotomies and no ruptures of the pterygoid process and Nor of the nasal septum. Points of easy identification in the axial sections would serve as guides in our measurements. These cuts were chosen through correlations with the coronal and sagittal sections. Nasal cavity expansion and nasal septum deviation were evaluated. An increase in the nasal cavity was observed in both the anterior and posterior nasal cavity, as well as a significant deviation of the nasal septum in the anterior and posterior regions. We conclude that although the nasal septum deviation occurred significantly, no functional or aesthetic impairment was observed for the patients.

Descritores:

Ortho-surgical maxillary expansion; Nasal septum; Computed tomography

P 34

Código do trabalho: Abor 097

Autores:

ATHAYDE RMC*, ANDRADE I

SPONTANEOUS CORRECTION OF SEVERELY ECTOPICALLY ERUPTING MANDIBULAR SECOND PREMOLARS: CASE REPORT**Resumo:**

This case report describes the treatment of a 9-year-old girl with a Class III malocclusion, posterior and anterior crossbites, ankylosis of deciduous mandibular second molars and ectopic eruption of mandibular second premolars. The orthodontic treatment was performed in 2 phases. The first one included rapid maxillary expansion, maxillary protraction with Hickham chincup and lingual arch. The deciduous mandibular second molars were extracted. The crossbites were corrected and the patient achieved molar Class I relationship. The lingual arch was kept in place during the first phase and the retention period. The eruption path of the mandibular second premolars was evaluated periodically through XR's. The images revealed a spontaneous correction of the severely impacted second premolars. The second phase was initiated in the permanent dentition, with the second premolars already erupted in the oral cavity. Fixed appliances were installed in the maxillary and mandibular arches. Align and levelling were performed and elastics were used to achieved ideal occlusion. Treatment objectives were achieved with excellent esthetic and functional results.

Descritores:

Orthodontics, Interceptive; Malocclusion, Angle Class III; Tooth, Impacted

P 35

Código do trabalho: Abor 098

Autores:

BAYERL MLM*, FLÓRIO FM, OLIVEIRA AMG, ZANIN L.

DENTAL MALOCCLUSION AND ITS ASSOCIATION WITH AESTHETICS SELF-PERCEPTION IN ADOLESCENTS**Resumo:**

This study aims to evaluate the presence of dental malocclusion in adolescents, the association with self-perception of oral aesthetics and to verify if there are differences between the periodontal millimeter probes and the World Health Organization (WHO) probe in the Dental Aesthetics Index (DAI) measures. A total of 86 adolescents aged 14 to 19 years, from the Ifes in Vitória/ES, were evaluated. To evaluate the malocclusions the DAI was used while Aesthetic self-perception and quality of life were measured using the Oral Aesthetic Impact Subjective Score (OASIS). The most frequent DAI items were "anterior maxillary overjet" (96.5%); "Crowding in the incisor region" (84.9%) and "anterior mandibular misalignment" (81.4%). The least frequent were "absence of dentition" (3.5%); "Anterior mandibular overjet" (3.5%) and anterior vertical open bite (4.7%). In the analysis of the DAI with the WHO probe, 43.0% of the volunteers were classified as normal; 27.9% with defined malocclusion; 17.4% with severe malocclusion and 11.6% with very severe malocclusion. With the periodontal millimeter probe, 46.5% of the volunteers were classified as normal; 25.6% with defined malocclusion; 18.6% with severe malocclusion and 9.3% with very severe malocclusion. There was no significant association between the OASIS with age, sex or with DAI classification, by the two kinds of probe.

Descritores:

Malocclusion. ; Self-Perception. ; Oral Aesthetic.

P 36

Código do trabalho: Abor 101

Autores:

LOPES CDL*, MATTA ENR, LINS GO

EVALUATION OF INITIAL STRENGTH RELEASED BY BENGAL AND MODULAR ELASTIC LIGATURES**Resumo:**

This study evaluated comparatively the initial force released by the orthodontic elastic ligaments of the bengal and modular type and in relation to the metallic alloy. A total of 305 samples of amarrhos were tested in 3 different groups: Group 1 (bengal type), Group 2 (modular type) and Group 3 (metal alloy) constituting the control group. Groups 1 and 2 with 150 samples each and group 3 with 5 samples. The elastics were kept in a 7 x 7 cm acrylic jig which was fixed to a wooden base of 55 X 15 cm, especially for the purpose of performing experiments with orthodontic elastics. The elastics were activated at 50% of their initial passive lengths and the initial forces released were measured using a precision digital dynamometer. For the normality test, the Kolmogorov-Smirnov method was used and to verify the existence of statistical differences between the group was used the Student's t-test with 5% level of significance for both tests. The results showed a significant difference between the mean initial force released from 205.4gf, 235.9gf and 297.2gf for the bengal, modular and metallic groups, respectively. It can be concluded, based on the sample used, that the initial force released by modular type elastic beads is larger when compared to the force released by the flare type. The two types of elastic yarns showed inferior initial strength when compared to the metallic amaranth.

Descritores:

Tensile strength; Elastomers; Elasticity

P 37

Código do trabalho: Abor102

Autores:

GIACOBBO LC*, GUIMARÃES LK, FORNAZARI, IA, TANAKA O.

SIGNIFICANT ABRASIONS: GREAT SYMBIOSIS BETWEEN ORTHODONTICS AND COSMETIC DENTISTRY**Resumo:**

Abrasion is the loss of tooth structure due to mechanical wear resulting from repeated frictional contact with the tooth. The orthodontic biomechanics are important tools for restoring aesthetics and dental function while cosmetic dentistry complements the final stage of the orthodontic treatment. The multidisciplinary work must also be exercised for the search of the harmonic smile, facial and dental balance, and stability of the obtained results. Patients with multiple dental problems need a multidisciplinary treatment approach to obtain acceptable results. Treatment planning with two or more specialties should be informed to the patient from the beginning of the treatment. The aim of this posterboard is to describe the orthodontic treatment and functional rehabilitation of a clinical case in an adult patient with skeletal and dental Class I, posterior crossbite, significant abrasion on the palatal face from maxillary canine to canine. The orthodontic treatment was performed with a total fixed appliance, mini-expander associated with vertical elastics. Good dental intercuspation was obtained and it enabled the conditions for the restoration of the abrasions on the palatal surfaces of the maxillary incisors and canines, and the tips of the buccal cusps of the premolars and the maxillary right first molar. Retention was performed with removable wraparound type appliance in the maxillary arch and bonded lingual arch from mandibular canine to canine.

Descritores:

Abrasion; Orthodontics; Dentistry

P 38

Código do trabalho: Abor 103

Autores:

MODA LARISSA B*, BARROS ANA LUIZA CS, FAGUNDES NATHALIA C F , MENDES SISSY M A

LOWER FIXED CONTAINMENT: FILLED IN ALL TEETH OR ONLY IN THE DOGS? A SYSTEMATIC REVIEW**Resumo:**

This systematic review aims to assess whether there is a difference in the stability of orthodontic treatment in lower fixed orthodontic retainers, bonded to all lower anterior teeth or only to canines. Electronic searches were performed in the PubMed, Scopus, Web of Science, Cochrane Library, Lilacs, OpenGrey, ClinicalTrials and Google Scholar databases, without year or language restriction. Randomized and non-randomized clinical trials were included in adult patients completing orthodontic treatment. After the final selection, bias risk assessment and qualitative synthesis were performed. In addition to stability, the periodontal condition and breaks were evaluated secondarily. 128 records were identified and four were selected. Two studies reported improved stability for the contained adherence in the six teeth, while the other studies did not observe a difference between the types of retainers. Only one study verified the presence of a greater accumulation of plaque in the retainers adhered to all the anterior-inferior teeth. And the studies identified a greater index of detachment for the retainers when bonded to all teeth. The studies presented a risk of bias varying from moderate to high. The stability of orthodontic treatment was shown to be better with the fixed retainer bonded to all teeth, and secondary factors (plaque index and detachments) showed no difference. However, there is a need for studies of higher methodological quality for a more robust response.

Descritores:

Orthodontics retainers; Stability; Irregularity of incisors

P 39

Código do trabalho: Abor 105

Autores:

DOUGLAS VOSS DE OLIVEIRA, JOSÉ THIERS CARNEIRO JÚNIOR, ANTONIO DAVID CORRÊA NORMANDO, PAULO HEMERSON DE MORAES

ORTOGNATHIC SURGERY IN A PATIENT WITH GOLDENHAR SYNDROME USING CUSTOM-MADE MINIPLATES: OVERLAPPING 3D IMAGES

Resumo:

Goldenhar syndrome is a rare pathology characterised by a triad of craniofacial microsomia, ocular dermoid cysts and spinal anomalies. Virtual surgical planning with custom miniplates and bone-supported guides are indicated in complex cases such as those that are asymmetrical and syndromic, enabling to obtain aesthetic, functional and accurate. Our patient was a 19-year-old man with facial hypoplasia grade 2 right, heart diseases, changes in the airways, spinal scoliosis, absence of right condyle, glenoid cavity malformed, and Class III skeletal with 14 mm of maxilla-mandibular discrepancy. Virtual surgical planning consisted of correction of maxilla-mandibular discrepancy with 6 mm maxillary advancement (Le Fort I Osteotomy) with the correction of cant and the midline, mandibular setback of 8 mm (sagittal osteotomy) , and chin advancement of 6 mm. To analyze, one year after the surgery, a second CT scan was processed to create a 3D model of the postoperative maxillofacial skeleton. The comparison was performed by overlapping the STL files of the planning virtual images and the second CT by superimposed structures in the cranium that did not undergo variation in their position. We used the software 3-Matic (Materialise Dental, Leuven, Belgium) to overlapping. At the level of the maxilla, the relapse mean was -0.177 mm and SD 2.154 mm. For the mandible, the mean was 0.363 and SD 1.523. The results were clinically satisfactory and demonstrated good accuracy.

Descritores:

Orthognathic surgery; Surgical fixation devices; Facial Asymmetry; Goldenhar syndrome

Fonte: CNPq, FADESPA, Hospital Ophir Loyola

P40

Código do trabalho: Abor 108

Autores:

GUIMARÃES LK*, TAFFAREL, IP, GIACOBBO LC, TANAKA O.

THE BLACK SPACE AND THE MIDLINE DIASTEMA. GREAT AND SMALL DIFFERENCES**Resumo:**

The maxillary central incisors are the most dominant teeth in the mouth and can be seen in a smile. Therefore, there is a high requirement for these teeth to be perfect and any space between them can interfere with the smile and facial harmony. The differential diagnosis between the black space and the diastema, considering the etiologies such as age, size and crown morphology, should be considered when planning. The black space consists of an undesired space, usually located between the maxillary central incisors in the cervical region above the contact point. It occurs when the space of the interdental papilla is not completely covered by gingival tissue. It presents a variety of etiologies, including inadequate root inclination. The diastema is the space between two teeth without any contact, and may be the result of agenesis, or lateral incisor malformation, hypertrophy of labial frenum, tooth-size discrepancy, habits or relapse of orthodontic treatment. The objective of this posterboard will be to demonstrate the importance of the reestablishment of the interdental spaces translated by the triangular black space and the diastema, with orthodontic treatment, using the correct biomechanical strategy. There are several approaches to treat diastemas and black spaces, and the multidisciplinary approach provides the most satisfactory result. The correction of the black space and diastema was performed with a fixed appliance for the three-dimensional biomechanical control with aesthetic dental results.

Descritores:

Diastema; Orthodontics; Smiling

P 41

Código do trabalho: Abor 111

Autores::

TEIXEIRA PDC*; REGO MVNN; MARTINEZ EFM; RUELLAS ACO

EVALUATION OF THE FRICTION OF WIRES WITH AND WITHOUT AESTHETIC COATING IN SELF-LIGATING AND CONVENTIONAL BRACKETS**Resumo:**

The aim of the present study was to evaluate the friction of 0.016 “teflon-coated nickel-titanium (TP Orthodontics) wires with uncoated wires of the same brand by means of in vitro and ex vivo assays (after 30 days of clinical use) in self-ligating (SLB) and conventional (CB) brackets. The study was approved by the Research Ethics Committee (Protocol 2015 / 961.297). Were used by means of lottery, nickel-titanium wire with and without coating on the upper and lower arches of 12 patients belonging to the same clinic, totalizing 24 arches. The wires were divided into 4 groups for each type of bracket: original wires with and without coating, post-use wires with and without coating. The mechanical surface friction test was performed on an EMICDL 10000 machine with EMIC load cell of 20 N (2.04 gf). In the SLB and CB the coated wires had a higher average friction than the uncoated ones, with significant differences (p

Descritores:

Friction; Orthodontic wires; Aesthetic coating

P 42

Código do trabalho: Abor 114

Autores:

LAIZE ROSA PIRES, PATRÍCIA DE CASTRO VIEIRA, GIORDANI SANTOS SILVEIRA, DAURO DOUGLAS OLIVEIRA PIRES LR*, VIEIRA PC, SILVEIRA GS, OLIVEIRA DD

TWO-PHASE ORTHODONTIC TREATMENT FOR CLASS II AND SEVERE OPEN BITE CORRECTIONS WITHOUT DENTAL EXTRACTIONS**Resumo:**

The aim of this presentation is to illustrate the successful orthodontic two-phase treatment of an 8-year-old female patient with Angle Class II malocclusion, severe maxillary atresia and anterior open bite, in addition to a thumb suction habit. Initially, rapid maxillary expansion (RME) and control of deleterious habit were performed using the Hass-expander supported on the second deciduous molars and modified to receive anterior grid, which was later transformed into a spurs. Then another RME was performed with the mini-Hyrax expander supported on the first permanent molars and use of high pull headgear appliance. At the end of this interceptive phase the anterior open bite was corrected. After the eruption of all permanent teeth, two options for corrective treatment were presented: the idealist, which consisted of the use of fixed appliances with extractions of the second premolars and an alternative that contemplated RME, fixed appliances and stripping. As treatment with extractions was refused by the parents, the 2nd option was successfully performed. The results were very satisfactory with the patient presenting a harmonious facial profile, Angle Class I and normal overbite and overjet. The results were stable 1 year post treatment. MeSH

Descritores:

Malocclusion Angle Class II, Openbite, Orthodontics preventive

P 43

Código do trabalho: Abor 115

Autores:

OLIVEIRA CB*, RIBEIRO AA, PEREIRA APS, SANTOS PINTO A.

POST-PUBERTAL MANDIBULAR GROWTH: A SYSTEMATIC REVIEW**Resumo:**

This systematic review aimed to quantify the post-pubertal mandibular growth according to age, sexual dimorphism, race and Angle's classification of malocclusion. Research was done on electronic search of databases (PubMed, Medline, Scopus, Embase, Science Direct, LILACS and Cochrane Library) and manually through the analysis of bibliographic references and search in orthodontic magazines. The evidence level evaluation of the studies was carried out according to the quality assessment tools of studies specified by the National Institutes of Health. Measurements of mandibular sagittal length Co-Gn and Co-Pog and comparison of annual post-pubertal mandibular growth rates was assessed according to age, sexual dimorphism, race and angle's malocclusion. Eleven studies were included and assessed for quality: 3-low level, 7- medium level, 1- moderate-high level. Regarding gender: post-pubertal male growth > female. For the race: caucasian and asian Class I presented lower and similar growth rates; Class III caucasian > asian. For malocclusion: caucasians Class III > Classes I = Class II; the asians Class I = Class III. Concerning to age, the highest annual post-pubertal mandibular growth rates ranged between 15-18 in males and between 14-16 in female. Regarding post-pubertal mandibular growth it can be concluded that there is sexual dimorphism, Asian and white breeds showed similar rates, Class III malocclusion showed higher rates than Class I and II and differences in the age period of greater post-pubertal mandibular growth were found regarding gender.

Descritores:

Puberty; Mandible; Growth

P 44

Código do trabalho: Abor 121

Autores:

FRANÇA EC*, SILVA ALC, BARTOLOMEO FUC, PRETTI H.

INVISALIGN®, CARRIÈRE DISTALIZER AND ACCELEDENT® IN EFFICIENT CLASS II TREATMENT: CASE REPORT**Resumo:**

The association of aligners with complementary devices and methods to accelerate orthodontic tooth movement is an alternative, in complex orthodontic cases, to achieve satisfactory results with as much efficiency and aesthetic possible. This case report illustrates the treatment of a 30-year-old female patient with the Carrière Distalizer before the use of Invisalign®. Facially, the patient presented asymmetry, proper smile line, wide buccal corridor, increased vertical facial height and a convex profile. The intra-oral analyses revealed a Class II molar relationship on the left side, upper and lower anterior crowding and adequate overjet and overbite. The cephalometric analyses showed skeletal Class I, proper incisors inclination and increased vertical facial height. After obtaining the Class I molar relationship with the Carrière, aligners were placed in association with the use of AcceleDent®, allowing aligners to be changed weekly. At the end of 8 months of treatment, adequate overjet, overbite, dental alignment and leveling were presented as well as satisfactory functional occlusion and Class I dental relationship, remaining stable after 18 months of retention period. Therefore, this case report showed that the combination of aligners, AcceleDent® and Carrière Distalizer can be an efficient and aesthetic alternative option in the treatment of Class II malocclusion with stable treatment results.

Descritores:

Class II malocclusion; Invisalign; Vibration

P 45

Código do trabalho:: Abor 123

Autores:

MATIAS M*, BATISTA DM, FREITAS KMS, FREITAS MR

EVALUATION OF THE ATTRACTIVITY OF THE DIFFERENT TYPES OF AESTHETIC ORTHODONTIC WIRES**Resumo:**

The aim of this study was to evaluate the attractiveness of different types of aesthetic orthodontic wires. Five different types of orthodontic wires were evaluated, stainless steel, NiTi, one with teflon coating, one with epoxy resin coating and one with rhodium coating. A monocrystalline porcelain appliance was installed in the maxillary arch of a patient who had good dental alignment. The 5 wires were attached to the device with an aesthetic silicone elastic and photographed. The images were resized and used to assemble a search form. The form was evaluated by 163 people, 110 dentists and 53 laypeople. The data were statistically evaluated by two-way ANOVA and one-way ANOVA followed by Tukey tests. There was no significant difference between the groups of evaluators. There was a statistically significant difference in the attractiveness of the wires evaluated, with the most esthetic wire being the rhodium coating followed by the epoxy resin coating and finally the teflon coated wire, stainless steel wire and NiTi wire, without difference among them. The most attractive wire was the rhodium coating, followed by the coated with epoxy resin and, finally, the least attractive wire was the teflon coated without significant difference for the control wires.

Descritores:

Orthodontic wires; Esthetics; Orthodontics

P 46

Código do trabalho> Abor 126

Autores:

LYRA GM*, GONZAGA AS, AMARAL BA, LIMA KC

ASSOCIATION BETWEEN MALOCCLUSION AND SATISFACTION WITH APPEARANCE AND CHEWING IN ADOLESCENTS: A CROSS-SECTIONAL STUDY**Resumo:**

Objective: To evaluate the relationship between technically defined orthodontic needs (normative criteria) and satisfaction with perceived appearance and mastication in a group of adolescents, as well as the importance of this perception for orthodontic treatment. Material and Methods: A cross-sectional study was carried out with a sample of 215 students between 15 and 19 years old from the Federal Institute of Education, Science and Technology of Rio Grande do Norte (IFRN), Natal campus. For that, a questionnaire was applied in the form of a structured interview, with questions about individual perception regarding appearance and chewing. A single examiner trained and calibrated collected normative data on the need for orthodontic treatment through criteria established by the Dental Aesthetic Index (DAI). Results: There is a significant association between the DAI score and satisfaction with the appearance ($p = 0.003$) and chewing satisfaction ($p = 0.047$). When occlusal characteristics were analyzed separately, a greater number of problems were associated with appearance satisfaction, such as crowding, maxillary irregularity, mandibular irregularity and marked maxillary trespass (all with p

Descritores:

Orthodontics; Malocclusion; Dental esthetic

P 47

Código do trabalho: Abor 127

Autores:

LIMA KRS*, REGO MVNN, LEAL LMP, ARAÚJO GMM

INFLUENCE OF AESTHETIC COATING ON THE LOAD-DEFLECTION RATIO OF NICKEL-TITANIUM ARCHWIRES**Resumo:**

The present study sought to assess the influence of aesthetic surface coating on the load-deflection ratio in nickel-titanium (NiTi) orthodontic wires compared with uncoated wires. NiTi wires (0.016") from four different manufacturers (Morelli, Sorocaba, SP, Brazil; TP, La Porte, IN, USA; Eurodonto, Curitiba, PR, Brazil; Ortho Organizers, San Marcos, CA, USA) were divided into eight groups, according to presence or absence of coating: group 1, Morelli coated wire; group 2, Morelli uncoated; group 3, TP coated; group 4, TP uncoated; group 5, Eurodonto coated; group 6, Eurodonto uncoated; group 7, Ortho Organizers coated; group 8, Ortho Organizers uncoated. To determine the load-deflection ratio, a three-point bending test was performed in a AGS-X 250 KN (Shimadzu) universal testing machine. The results showed that aesthetic coatings did not influence load-deflection ratio in NiTi orthodontic wires at 1-mm and 2-mm of activation. However, comparison across the four tested brands revealed that Eurodonto coated wires exhibited the greatest force levels at 1-mm, 2-mm, and 3-mm deflection. At 3-mm deflection, Ortho Organizers coated wires exhibited lower force levels than all other tested brands, except for TP wires. We conclude that the load-deflection ratio of NiTi wires was not influenced significantly by aesthetic coatings, especially at lower activations.

Descritores.;

Orthodontic wires; Aesthetics; Alloys

P 48

Código do trabalho: Abor 132

Autores:

CAMPOS MLR*, SIQUEIRA DF, GOMES TA, SERAFIM CMC

CLASS I MINIMALIST TREATMENT WITH TERTIARY CROWDING: A CASE REPORT**Resumo:**

The tertiary crowding also known as late incisor crowding manifests itself in adulthood and has as its main characteristic the progressive overlap of the lower incisors. Etiology is multifactorial and studies show as the most common causes the late growth of the mandible and the mesialization of the posterior teeth. Because to functional and aesthetic discomfort the patient searches for orthodontic intervention. There are several therapeutic forms for crowding according to degree of severity, for exemple: vestibularization, stripping and tooth extraction. As the adult patient searches for effective treatments in a shorter time and minimalist. The purpose of this clinical report to present a therapeutic option in patients with Class I moderate tertiary crowding. A 21-year-old female patient complained that “the teeth began to bend and it was getting worse.” The treatment chosen was direct lower collage of canine to canine plus simple tubes in the first molars, alignment with stripping and use of open spring to obtain space for element 42, proceeded from the overlay technique. Treatment completed in 7 months and mandibular lingual fixed 3x3 orthodontic retainer.

Descritores

Malocclusion; Orthodontics, Corrective; Malocclusion, Angle Class I

P 49

Código do trabalho>: Abor 134

Autores:

FALCÃO ICMCF*, FREITAS KMS, CANÇADO RH, VALARELLI FP.

COMPARISON OF CHANGES IN THE WALA RIDGE AND MANDIBULAR ARCH DIMENSIONS WITH SELF-LIGATING AND CONVENTIONAL APPLIANCES**Resumo:**

The aim of this study was to compare changes in WALA ridge and mandibular dental arch dimensions with conventional and self-ligating appliances. Initial (T1) and final (T2) dental casts of 60 patients with Class I malocclusion treated nonextraction, with slight to moderate crowding, were divided into two groups. Group 1: 30 patients treated with self-ligating Damon appliances, at a mean initial age of 17.68 years and mean treatment time of 2.31 years. Group 2: 30 patients treated with conventional appliances, at a mean initial age of 19.23 years and mean treatment time of 2.56 years. Measurements were taken using a digital micrometer caliper. Intragroup comparison was performed with dependent t test and intergroup comparison, with independent t test. In intergroup comparison of treatment changes (T2-T1) the Damon group presented an increase in WALA ridge width and mandibular transversal dimensions significantly greater than the conventional group, with the exception of intercuspid distances of molars (PC 6X6) and WALA ridge in the region adjacent to the canines (BW 3X3), where there was no statistically significant difference between groups. It was also observed a significantly greater increase of the transversal dimensions through the facial axis point (EV) in the premolar area when compared to the WALA ridge increased in both groups.

Descritores:

Corrective orthodontics; Orthodontic appliance design; Treatment outcomes

P 50

Código do trabalho: Abor 135

Autores:

NAHÁS-SCOCATE ACR*, ARAÚJO-JÚNIOR FM, COSTA ALF, CARVALHO PEG

ALVEOLAR BONE PATTERNS IN THE ANTERIOR MAXILA TEETH: CONE-BEAM COMPUTED TOMOGRAPHY ASSESSMENT

Resumo:

The bone plates of the buccal and palatal surfaces of the maxillary anterior teeth, in patients with no previous orthodontic treatment, as well as the relationship with their inclination, were evaluated. Fifteen CBCT images, voxel size of 0.1mm, with a total of 90 teeth, were investigated. Sagittal sections views were analyzed to check the amount of bone tissue on the cervical (cervical buccal thickness/CBT; palatal/CPT), middle (middle buccal thickness/MBT; palatal/MPT), and apical regions (apical buccal thickness/ABT; palatal/APT). The height of the alveolar bone crest, from cemento-enamel junction (CEJ) to alveolar bone crest (AC), in both surfaces, and the measurement of the angle created by the long axis of the tooth and the Palatal Plane were also obtained. The Spearman coefficient, Linear regression models, Kruskal-Wallis and Dunn tests were applied (p).

Descritores:

Bone Tissue; Cone-Beam Computed Tomography; Orthodontics

P 51

Código do trabalho: Abor 138

Autores:

CASTELO KMS*, SOUZA AOQ, FONSECA IMRV, CHAVES JÚNIOR CM.

BENEFITS OF MAXILIARY EXPANSION IN POLYSOMNOGRAPHIC PARAMETERS OF THE SYNDROMIC PATIENT**Resumo:**

The objective of this case report is to describe the results of surgical maxillary expansion (SME) in the treatment of obstructive sleep apnea (OSA) in a patient with Proteus Syndrome. A 17-year-old male patient had poor bone formation in the feet and hands, volumetric increase of the second and third vertebrae, which compromised the oropharyngeal air space. It also had maxillo-mandibular retrusion, atresia of both arches and anterior open bite. The polysomnographic evaluation revealed a marked reduction in arterial oxygen saturation, frequent micro arousals and abnormal distribution of sleep phases. Initially, it was proposed the surgical disjunction of the maxilla, fixation of upper and lower fixed orthodontic appliances, extraction of the upper and lower first premolars, followed by maxillo-mandibular advancement. After SME, a reduction of 30% in apnea and hypopnea index (AHI), an increase in arterial oxygen saturation and a decrease in the number of arousals was observed. However, there was no significant improvement in the abnormal distribution of the sleep phases, with permanence of reduction of the proportional content of deep sleep. Thus, the present case report demonstrated that SME can provide benefits with a favorable impact on several polysomnographic parameters in the approach of patients with Proteus Syndrome, OSA and maxillary atresia.

Descritores:

Proteus syndrome; Obstructive sleep apnea; Palatal expansion technique

P 52

Código do trabalho: Abor 139

Autores:

BLAGITZ MN*, NORMANDO ADC, ALMEIDA GA.

FACTORS ASSOCIATED TO STABILITY OF THE COMPENSATORY TREATMENT OF CLASS III MALOCCLUSION IN PERMANENT DENTITION**Resumo:**

To evaluate the stability of the compensatory treatment of class III malocclusion in permanent dentition. 36 (21 female and 15 male) patients were selected, mean age of 20 years, with class III malocclusion, treated with dental camouflage in the permanent dentition and at least 3 years after the end of treatment. The multivariate Poisson regression analysis was used to evaluate the influence of clinical records (Sex, age, treatment time, posttreatment time, number of treatment phases, extractions, months of elastic use), cephalometric radiographs (SNA, SNB, ANB, WITS, SNGoGn, 1.NA, IMPA) and dental casts (PAR index and arch dimensions) at the beginning (T1), at the end (T2) and at the clinical relapse of class III (T3). Eleven patients (30.6%) presented clinical relapse of class III relation. The cases that presented lower inclination of the upper incisors in T1 ($p=0.035$), treated with extractions ($p=0.001$) and that were better finished (PAR-T2, $p=0.009$) presented a lower risk of relapse. All other variables were not significantly associated with clinical relapse (T3). The stability of the compensatory treatment of class III in the permanent dentition is multifactorial with few predictive variables. Patients treated with extractions of lower premolars, well finished presented a reduced risk of relapse, while excessive inclination of the upper incisors at the beginning of treatment increases the risk of relapse

Descritores:

Malocclusion Angle Class III; Recurrence; Treatment Outcome

P 53

Código do trabalho: Abor 144

Autores:

CHAVES JUNIOR CM*, ARAÚJO VMA, SOUZA AOQ, ESTANISLAU IMG

STUDY OF CORRELATION BETWEEN CEFALOMETRIC VARIABLES AND OXYHEMOGLOBIN SATURATION IN BRAZILIAN INDIVIDUALS WITH MODERATE**Resumo:**

The objective was to evaluate whether the cephalometric anatomical components have any correlation with the oxyhemoglobin saturation of individuals with Obstructive Sleep Apnea (OSA). The study sample consisted of 50 individuals with a polysomnographic diagnosis of moderate and severe OSA. All volunteers underwent a full-night polysomnographic evaluation and a cephalometric evaluation in a lateral norm (Research Ethics Committee nº1.559.795). The minimum oxyhemoglobin saturation (SpO₂) was 67.59 ± 12.67 . SpO₂ presented correlation with cephalometric values corresponding to the width of the soft palate ($p < 0.01$). It was concluded that cephalometric variables representative of the width / length of the soft palate and the position of the hyoid bone showed a correlation with the Oxyhemoglobin Saturation of patients with OSA. Support: FUNCAP.

Descritores:

Obstructive sleep apnea; Cephalometry; Polysomnography

Fonte: FUNCAP

P 54

Código do trabalho: Abor 145

Autores:

ARAÚJO VMA*, SANTOS PCF, MONTEIRO ALB, CHAVES JÚNIOR CM

THE INFLUENCE OF PREVIOUS ORTHODONTIC TREATMENT IN THE SEVERITY OF THE MALOCCLUSIONS IN YOUNG ADULTS

Resumo:

The objectives of this work were to compare a need for orthodontic treatment (OT) among young adults submitted to previous OT, and to analyze a severity of the malocclusions and a distribution of their different characteristics. In this study, 241 students between 18 and 33 years of age were evaluated and divided into two groups, those who underwent previous OT (+ OT= 130) and those untreated orthodontically (-OT= 111). For analysis of the malocclusions, the dental aesthetic index (DAI), which consists of 10 components, was used by a single examiner (COMEPE nº 250/07). 12% of the patients presented the need for treatment, but there was no statistically significant difference between the two groups ($p > 0.05$), with 9.2% of the +OT group and 15.3% of the -OT group. The +OT group presented a significantly lower percentage of crowding and anterior and inferior misalignment (p).

Descritores:

Malocclusion; Orthodontics; Esthetics, Dental

Fonte: *FUNCAP*

P 55

Código do trabalho: Abor 148

Autores:

ALENCAR DSA*, NASCIMENTO AGS, BORGES TF, SOUTO DG, GOUVEIA SA.

ASSESSMENT OF THE CONCORDANCE INDEX IN IDENTIFICATION OF THE FACIAL TYPE THROUGH SUBJECTIVE FACIAL ANALYSIS**Resumo:**

The aim of this study was to evaluate the agreement of orthodontists when diagnosing the facial type of patients through subjective facial analysis. To do this, 35 patients had the initial extra-buccal photographs extracted from their orthodontic documentation and arranged in two slide shows with preprogrammed transitions: one with the photographs of each patient grouped in each slide and another with their respective profile telerradiograph added to the slides. Students and professors from three postgraduate courses in orthodontics from Rio de Janeiro were invited to diagnose each patient, initially using the first presentation and, after at least 15 days, the second one. Their responses were grouped into tables so that concordance index between them were performed. It was also evaluated if the concordance index were influenced by the possibility of visualizing the profile telerradiographs, as well as the coincidence between the most chosen answers for each patient with their cephalometric analyzes using the Ricketts' VERT index. The results showed good and slightly higher concordance indices in the responses of the presentation with the telerradiographs. There was little agreement between the responses of the two presentations with the VERT index, which indicates that papers comparing other facial type assessment techniques are necessary to determine which resource would be more reliable.

Descritores:

Orthodontics; Diagnosis; Face

P 56

Código do trabalho: Abor 149

Autores:

PEREIRA GO, MOURA WS, GUIMARÃES JÚNIOR CH, HENRIQUES JFC

SURGERY FIRST APPROACH AND LINGUAL ORTHODONTICS: NEW HORIZONS FOR DENTOFACIAL DEFORMITIES.**Resumo:**

Surgery first approach does not require previous orthodontic treatment as in the conventional or three-step method, returning facial esthetics without worsening the profile of the individual treated. Associated with the lingual technique, it adds the advantage of not showing the device, attending a portion of our patients. Objective: To report the clinical case of a patient with a class III facial deformity with facial asymmetry that rejected both the possibility of being treated with dental decompensation prior to surgery and using the device on the external surface of the teeth. Materials and methods: A female adult, disharmonious face, class III skeletal pattern, with deficiency of the middle third of the face, mandibular deviation to the right side, increased proportion of the lower part of the lower third of the face, $\frac{3}{4}$ class III on the right side, class I on the left side, deviation from the lower midline to the right. Virtual planning was done with 3D Studio Max software (Autodesk) with maxillary advancement, mandibular recoil and chin intrusion. Stl files were generated with an intermediate guide, a final guide, and a mentoring guide, which were printed on an open source printer. In the 15-day postoperative period, the lingual appliance was customized using the virtual set up and Accurate Bracket Positioner (Adenta). Two miniplates were installed at the same time of surgery for mass distalization of the upper arch. After 6 months the final objectives were achieved.

Descritores:

Surgery first approach; Class III; Lingual orthodontic

P 57

Código do trabalho: Abor 151

Autores:

CHAGAS AS*, FREITAS KMS, CANÇADO RH, VALARELLI FP.

COMPARISON OF FORCE RELEASED BY INTERMAXILAR ELASTICS USED FOR DIFFERENT PERIODS OF TIME**Resumo:**

The objective of this study was to compare the strength degradation force of intermaxillary elastic used for different periods of time. The sample included intermaxillary elastics used for 20 adult patients with bilateral Class II or III malocclusion in orthodontic treatment with fixed appliances, with mean age of 27.25 years. Latex orthodontic elastics with 3/16" of diameter were used, with an average stretching of 3 times its diameter. The elastic were used for 1, 12, 24 and 48 hours. Thus, the sample consisted of 200 elastics, 40 being used in each time period and 40 new elastics without use tested as control. Elastics were tested in a Universal Testing Machine, stretched with velocity of 30mm per minute and the force was evaluated in stretches of 15mm, 20mm, 25mm and 30mm. The degradation force was compared in the four different times of use and control by one-way ANOVA and Tukey tests. There were significant differences among the groups in all evaluated stretches (15, 20, 25 and 30mm). The control elastics presented higher average forces numerically and statistically significant for all tested times, except for the elastic used for 1 hour. The elastics used for 1, 12 and 24 hours had similar forces among them, with a significant difference to the elastics used for 48 hours. It is recommended to change the intermaxillary elastics after 24 hours of use.

Descritores:

Elastomers; Materials Testing; Dental Materials

P 58

Código do trabalho: Abor 154

Autores:

RIBEIRO GLU*,RITTER DE,DERECH C,ANDRIANI JR W

THE DIGITAL SMILE PROJECT AS AN ESSENTIAL TOOL IN THE PLANNING OF ORTHODONTIC TREATMENT**Resumo:**

To obtain consistent aesthetic results, the digital smile evaluation and the anterior area restorations and / or rehabilitations design in dentistry should be defined when planning orthodontic treatment. For the preparation of digital aesthetic planning, it can not be neglected: the main complaint, the clinical data, the precise elaboration of the diagnosis, the checklist of the observed problems and the analysis of the complementary examinations. In Orthodontics, the digital smile design, when previously designed the future restorations of the anterior teeth, facilitates the orthodontist in the orientation not only of the subsequent phases as well as of the precise location of the teeth adjacent to those that will be rehabilitated or anatomized. An adequate digital evaluation protocol can provide, besides an aesthetic diagnosis, improving the diagnostic visualization for the elaboration of an “ideal” restorative technique, the best communication among the interdisciplinary team, not just for a more adequate planning elaboration, the patient necessary feedback, as well as the marketing tools to encourage the patient to accomplish the right treatment. It will be presented clinic cases showing the effective smile digital analysis to get functional and aesthetic smiles.

Descritores:

Smile; Dental esthetic; Esthetic

P 59

Código do trabalho: Abor 157

Autores:

RABELLO NM*, VOSS D, THIERS J, PEREIRA GO.

GUIDELINES FOR ANTICIPATED BENEFIT ORTHOGNATHIC SURGERY FOR SHORT FACE STANDARD PATIENTS**Resumo:**

Anticipated benefit corrects skeletal deformities by anticipating orthognathic surgery without prior orthodontic preparation. By decreasing the treatment time and improving the aesthetics of the patient immediately this technique has been used. Objective: Report the guidelines for the treatment of anticipated benefit with orthognathic surgery of a clinical case that had already undergone orthodontic treatment in adolescence with negative outcome for occlusion and for face. Materials and method: A female adult female, short face pattern with skeletal asymmetry, lower third of the face shortened, compressive lip sealing, total overbite, class II ¼ of canines and molars and soft inferior crowding. In the diagnosis and treatment plan, a virtual surgical planning was performed to advance with hourly rotation of the maxilla and mandible and ment, with correction of the mandibular cant and the chin. They were printed two surgical guides of thermoplastic ad one biocompatible material. In the 7 day postoperative period, upper and lower buccal orthodontic appliances were installed to correct the positioning of the teeth and 50 ud of botulinum toxin was applied to the masseters to aid in surgical stability. The treatment time was 8 months. Conclusion: The patient is in periodic follow-up of the orthodontic restraints, with surgical stability reaching the success of the treatment planning.

Descritores:

Anticipated benefit; Orthognathic surgery; Orthodontic

P 60

Código do trabalho: Abor 161

Autores:

ESTANISLAU IMG*, CASTELO KMS, ARAÚJO VMA, CHAVES JÚNIOR CM

ORTHODONTIC EXTRUSION AS A MODE OF BONE PREPARATION FOR INSERTION OF IMPLANT**Resumo:**

Orthodontic extrusion is a movement performed in the same direction as the movement of the eruption that can be induced or natural, resulting in the stretching of the periodontal fibers with formation of new bone in the areas of the alveolar ridge. In order to review the literature on the performance of orthodontic extrusion as a means to assist the alveolar bone gain prior to the installation of implants, a literature review was carried out in the databases BIREME and PUBMED, published in the last 5 years. We selected 5 articles that corresponded to the research objectives. The results showed that slow extrusion with forces ranging from 30 to 50 grams of force with extrusion time extending from 2 to 14 months were able to significantly increase alveolar bone levels. This technique allowed a bone gain that ranged from 2 to 7 mm. In addition, this movement moved the free gingiva and the interdental papillae coronary, while the location of the mucogingival junction remains constant. Slow extrusion of periodontally impaired teeth showed benefits for the coronal development of bone and gingiva at the implant site both in procedures that did not use a surgical procedure to increase the border and in the association with guided tissue regeneration techniques, in both cases Excellent long-term prognosis. It was concluded that orthodontic extrusion is one of the most effective modalities to prepare the ideal implant insertion site

Descritores:

Orthodontic extrusion; Implant; Rehabilitation

P 61

Código do trabalho: Abor 164

Autores:

FORTES PTF*; REGO, MVN

MAXILLARY PROTRACTION WITH SKELETAL ANCHORED: A CLINICAL CASE**Resumo:**

The aim of the present study was to demonstrate the early treatment of the III pattern of a growing patient by the Manhães protocol. This protocol consisted of the installation of 2 minimplants in the anterior region of the palate near the medial palatine suture and 2 minimplants between lateral incisor and lower canines, installation of bands in the upper molars and transfer molding of the bands and transferors of the minimplants for laboratory manufacture of hybrid Hirax circuit breaker with posterior hooks and anterior extension with hooks in the region of canines and bar-Manhães in the lower arch, such devices were installed on the minimplants. Activation of the expander screw was performed 2 times a day in $\frac{1}{4}$ turn for 14 days. Class III intermaxillary elastics were used continuously with support on the back hook of the breaker and lower bar hook with 100 g force and, after 30 days, the force was changed to 200 g. The treatment consisted also in the nocturnal use of facemask with slope of the direction of the elastic of 30° of the apparatus for the hook of the previous extension of the breaker with force of 400g. After 3 months, there was improvement of the sagittal discrepancy with positive overjet and no mesialization of the posterior teeth and buccal inclination of the posterior teeth were observed. Thus, in a short-term evaluation, the Manhães protocol, together with patient collaboration, was effective in improving sagittal discrepancy with maxillary advancement and minimal dental effects

Descritores:

Class III, Skeletal; Maxillary protraction; Bone anchored

P 62

Código do trabalho: Abor 165

Autores:

FERNANDES DAA*, FERNANDES LAA, GARBUI IU, ARAÚJO PPB, NOUER PRA

EPIDEMIOLOGICAL STUDY OF MALOCCLUSIONS IN STUDENTS FROM 7 TO 17 YEARS OLD OF THE PUBLIC SCHOOLS IN AUGUSTO CORREA CITY**Resumo:**

The aim of this study was to evaluate, the malocclusion prevalence and its functional deviations from normality in students from 7 to 17 years old from the public school system in Augusto Correa city, Pará, Brazil. A cross-sectional study was conducted with 618 students from both genders who never underwent orthodontic treatment, all of them with parents born in the city. The data were submitted to the descriptive statistical analysis and the comparison between the groups analyzed by chi-square test. Regarding the types of malocclusion, the results showed that there was a prevalence of Angle Class I. In urban areas (53%), with a balanced incidence between males and females (42.4% and 43.8%, respectively), followed by Class II (36.4%) and Class III (10.6% %). In the rural areas, Angle Class II prevailed in 43.9% of the students (42.6% of the male gender and 57.4% of the female), followed by Class I (38.6%) and Class III (17.7%). Regarding deleterious oral habits, there was dominance of onicophagy in both zones, with an incidence of 11% in the rural area and 9.6% in the urban area. Crowding was the most prevalent malocclusion found in lower dental arch (49,8%) while in the maxila, atresia was the most prevalent finding (29,1%). Conclusion: malocclusion was detected in all students examined in both urban and rural areas, indicating the need for early intervention.

Descritores:

Prevalence; Malocclusion; Orthodontics.

P 63

Código do trabalho: Abor 168

Autores:

ASSUNÇÃO SEFS*, MARTINS FILHO HDS, CÔRREA BC, PINHEIRO JÚNIOR JM

EFFECTS OF THE RAPID MAXILLARY EXPANSION IN SUPERIOR ARCH PERIMETER EVALUATEDS IN DIGITAL MODELS - CASE REPORT**Resumo:**

The work presents a case report where the effects of Rapid Maxillary Expansion (RME) are described from the mensuration in digital models, comparing the initial phases (Pre-RME) and end of treatment (Post-RME). Patient LLM, female, 10 years and 2 months, leucoderma, Standard I, dolichofacial, with maxillary atresia, primary crowding in the upper and lower arches, was submitted to RME with modified Haas type device in the intertransitory period of the mixed dentition, with Protocol Activation of 2/4 of lap in the morning and 2/4 of lap in the evening, being finished with overcorrection of 2 to 3 millimeters. Standardized, obtained, scanned gypsum models (XCAD Scanner, True Image, MG, Brazil) and evaluateds in the Pre-RME and Post-RME phases. Measures were realized using the ORTHOVIEWER 3D® program, being the following: Intercanines deciduous distance (ICDD), Inter Second molars deciduous distance (IMD2) and Intermolars permanents (IMPD) as well as arch perimeter (AD). After the measurements it was verified that the transverse dimensions showed increase of 6.63 mm in the ICDD measurement; 6.86 mm in the IMD2 and 8.05 mm in the IMPD, sufficient for the treatment of crossbite, as well as increase of the perimeter of the arch (6.30 mm) to dilute the initial crowding. It is concluded that RME presents important side effects to obtain increments on perimeter of the upper arch in the mixed dentition, positive for the resolution of the primary crowding. In the evaluation, the digital models have great advantages and are as reliable as plaster.

Descritores:

Palatal Expansion Technique; Orthopedics; Dental models

P 64

Código do trabalho: Abor 171

Autores:

MARIA AUGUSTA ANDRIGO PERIN; THAYSA FEDALTO LOPES PAULA CRISTINA TREVILATTO
VALÉRIA KRUCHELSKI HUK

ANALYSIS OF THE ASSOCIATION OF IL4 POLYMORPHISMS WITH ORTHODONTIC MINI-IMPLANTS FAILURE

Resumo:

This study aimed to investigate the association of clinical characteristics and polymorphisms (tag SNPs) in the IL4 gene) with orthodontic mini-implants (MI) failure. The sample consisted of 135 patients: 31 patients had at least one missing mini-implant (case group) and 104 patients without any lost mini-implants (control group). The tag SNPs capture the complete gene information in terms of variability. Genotyping of the IL4 gene was realized by real-time PCR technique and tag SNPs rs2227284 and rs2243268 were chosen based on the International HapMap Project. Bivariate (p).

Descritores:

Implant loss; Polymorphisms; IL4

P 65

Código do trabalho: Abor 173

Autores:

CICCONE DE FARIA, PS*; CICCONE DE FARIA TS; VERAS, DFO; BRUGNARA, DC

INTERMAXILLARY ELASTICS THERAPY AS CONSERVATIVE TREATMENT OF THE CLASS II DIVISION 2 MALOCCLUSION - A CASE-REPORT**Resumo:**

Class II division 2 malocclusion is characterized by a Class II molar relationship, retroinclined incisors and frequently overbite. Treatment options in the adult patient include dental extractions, orthognathic surgery and dentoalveolar modifications without extractions. The purpose of this study is to present a clinical case of a male patient, 18-years 2-months old, presenting a Class II division 2 malocclusion with Class II molar ratio of 4 mm bilaterally, maxilla and mandible retruded, vertical growth, retroinclined maxillary and mandibular incisors, severe upper and lower crowding, and accentuated overbite. Three treatment options were proposed: 1. maxillary first premolars extractions 2. orthognathic surgery 3. Class II intermaxillary elastics without extractions. The patient refused treatment with extractions or orthognathic surgery and choose for the last alternative. Copper NITI 350 wires were used during initial alignment and the intermaxillary elastics were used on welded hooks in the rectangular steel wires in order to keep the force vector as horizontal as possible. Lingual root torque was applied to control the upper incisor inclination. At the end, Class I dental relationships, overbite correction, better incisors inclinations, as well as a improved profile aesthetics were achieved. When applied directly to the arch, the elastics therapy proved to be efficient in the correction of Class II division 2

Descritores:

Orthodontics, Corrective; Malocclusion, Angle Class II

P 66

Código do trabalho: Abor 174

Autores:

CICCONE DE FARIA, TS*; CICCONE DE FARIA PS; GARCIA, DA; BRUGNARA, DC

TREATMENT OF A CLASS II DIVISION 1 MALOCCLUSION WITH MECHANICAL-FUNCTIONAL ORTHOPEDIC APPLIANCE – A CASE-REPORT**Resumo:**

Treatment of Class II, division 1, with maxillary protrusion and/or mandibular retrusion, requires the use of devices that promote maxillary anterior displacement control and orientation of mandibular development during the growth period. Headgear-activator appliance is a removable mechanical orthopedic device in which headgear and activator constitute a single block, leading to a equilibrium of the maxilla, mandible and muscles. The aim of this study is to present a clinical case of a 12-years 10-months old male patient, full permanent dentition, Class II malocclusion with the maxillary protrusion, good mandible positioning, horizontal growth and pronounced overjet. In the anamnesis, the parents reported a slight trauma to the upper incisors during childhood. Periapical radiographic examination revealed severe root resorption of the upper central incisors, contraindicating orthodontic treatment with dental extractions and extensive anterior retraction. It was proposed extrabucal-activator treatment for the purpose to achieve skeletal and dental modifications favorable for the correction of malocclusion with minimal overload on the upper incisors. At the end of 9 months treatment, dental and skeletal Class I relationships were obtained with minimal alterations of the incisors root lengths demonstrating the importante role of orthopedic appliances in the success of non-extraction Class II treatment.

Descritores:

Orthodontics, Interceptive; Extraoral Traction Appliances

P 67

Código do trabalho: Abor 175

Autores:

SOUSA AS*, NORMANDO ADC

THE ABILITY OF ORTHODONTICS AND BUCOMAXILOPHARY SURGEONS IN PREDICTING THE ERUPTION OF THE LOWER THIRD MOLARS**Resumo:**

The aim of this study was to evaluate the ability of oral and maxillofacial surgeons (CBMFs) and orthodontists to predict the spontaneous eruption or impaction of third molars by examination of serial panoramic radiographs. Thirty-four orthodontically treated patients were analyzed, without exodontia, whose third lower molars (n = 68) erupted spontaneously or impacted (negative control). The first radiograph was obtained at the end of orthodontic treatment (RX1) and the second (RX2), 2 years later. Radiographs were randomly analyzed by 27 CBMFs and 27 orthodontists. When examining RX1 + RX2 at the same time (n = 68), the CBMFs matched the prognosis in 40.5% of the cases and the orthodontists had a more considerable hit rate in 43.4% (p).

Descritores;

Third molar; Tooth extraction; Orthodontist

P 68

Código do trabalho: Abor 180

Autores:

GUIMARÃES JD*, TIAGO CM.

ORTHODONTIC MOVEMENT IN TEETH WITH PERIODONTAL INVOLVEMENT: REPORT OF A CLINICAL CASE.**Resumo:**

The most aggravating factor of orthodontic treatment in adults is undoubtedly periodontal disease, since the combination of inflammation, orthodontic forces and occlusal trauma can produce a more rapid destruction of the supporting tissues of the teeth. The most common reasons are aesthetic, or by request of other specialties, such as prosthetic rehabilitation and even periodontics. The objective of this work is to show, through a clinical case, the possibility of orthodontic treatment in periodontal patients as well as to describe their specificities. It is concluded that the success of orthodontic and periodontal interventions depends on the accomplishment of a multidisciplinary planning, considering mainly the presence of inflammation, the patient's collaboration regarding oral hygiene, quality of bone support, type of movement, strength to be Applied and periodontal maintenance throughout the treatment.

Descritores:

Orthodontics; Adults; Periodontal disease

P 69

Código do trabalho: Abor 181

Autores:

SOARES ECB*, ANDRADE EC, DRUMMOND AF, NEVES LS.

TREATMENT OF CLASS II WITH EXTRACTION OF UPPER FIRST MOLARS: CASE REPORT.**Resumo:**

The aim of this study was to present a clinical case with class II malocclusion treated in the permanent denture phase with extractions of the first maxillary molars. The extraction of permanent molars is not a standard practice in orthodontic practice, since these teeth are considered key occlusion. In addition, orthodontic treatments are technically more complex and good results are more difficult to achieve, however, in some cases, where extraction of teeth is indicated, molars may become the first option, especially when they are compromised. The extraction of first molars for class II correction proved to be an effective treatment approach, with extremely favorable finishing, mainly because it was performed with rigorous diagnostic criteria.

Descritores;

Tooth Extraction; Orthodontics, Corrective; Malocclusion, Angle Class II

P 70

Código do trabalho: Abor 187

Autores:

PEREIRA ABN*, SCHROEDER DK, SCHROEDER MA, SOBRAL MC

COMPENSATORY TREATMENT OF A SKELETAL AND DENTAL CLASS III AND OPEN-BITE MALOCCLUSION IN ADULTS**Resumo:**

HTM patient, male, 18 years and 7 months, sought orthodontic retreat due to aesthetic complaint of anterior open bite and crowding in both arches. During clinical and radiographic examination was observed: Lower third of face increased; Class III skeletal malocclusion; Slightly concave profile; 5mm anterior open bite and crowding in upper and lower arches. The upper midline was deviated 2mm to the left side and the lower line coincident with the facial midline. It also had a reverse Spee curve in both arches, with the upper incisors slightly proclined and the lower incisors vertical. The hand and wrist x-ray was requested for evaluation of residual growth, and it was verified that the growth had ceased. Considering that the patient had no deleterious oral habits and the surgical option was discarded by him, a compensatory orthodontic treatment was performed. Alignment and leveling of the arches was performed, compensation folds were performed and intermaxillary elastics were used to close the open bite and class III correction. The duration of treatment was 27 months, being the collaboration of the patient an important factor of success. An ideal occlusal relationship was obtained with open bite closure, molar and canine in class I relationship, high degree of patient satisfaction and great aesthetic and functional gain.

Descritores:

Class III Malocclusion; Open-bite; Compensatory treatment

P 71

Código do trabalho: Abor 188

Autores:

OLIVEIRA, LÍVIA TORQUATO; BRITO, HÉLIO HENRIQUE DE ARAÚJO; JUNIOR, ILDEU ANDRADE

SEGMENTED MECHANICS TECHNIQUE OPTIMIZING RESULTS IN CLASS II TREATMENT WITH A SEVERE DEEP OVERBITE: A CASE REPORT**Resumo:**

This case report describes the treatment of a Class II malocclusion of a 13-year-old boy with a deep overbite and incisor flaring. The patient presented a symmetrical face, with good facial balance, a convex profile, lip incompetence and protrusion of the maxillary incisors. The intraoral exam presented a mixed dentition in a final stage, with a narrowed maxillary arch, moderate crowding, and accentuated overjet and Curve of Spee. The cephalometric analysis confirmed the protrusion and projection of the maxillary incisors ($1.NA=40^\circ$; $1-NA=13,5\text{mm}$) and lower incisors well aligned ($IMPA=94^\circ$; $1-NB=5\text{mm}$; $1.NB=24^\circ$). The treatment plan was performed in two phases. The first one corrected the molar relationship and controlled the vertical with a modified Thurow. In the second phase, a fixed appliance was bonded in the maxillary arch for aligning, leveling and distalization of the premolars and canines. The mandibular arch was treated with segmented mechanics for controlled intrusion of the canines and incisor with a cantilever. The retraction of the maxillary incisors was carried out after leveling of the curve of Spee. The segmented mechanics allowed a controlled and precised mechanics to achieve an excellent intercuspitation without side-effects.

Descritores:

Malocclusion, Angle Class II; Overbite; Tooth Movement Techniques

P 72

Código do trabalho: Abor 194

Autores:

CALDAS LD*, SANTOS RF, VASCONCELOS EC

SPACE RECOVERY USING HYBRID PALATAL EXPANDER ASSISTED BY MINI-IMPLANTS**Resumo:**

Space recovery might be necessary in the mixed dentition, especially after premature loss of deciduous molars. It allows the permanent teeth to erupt in correct position in the arch. Depending on the size of the space loss, however, retrieve it using only dental support can often cause side effects on adjacent teeth. The present case, therefore, aimed to report a space recovery of approximately 8mm, due to premature loss of the right maxillary second deciduous molar in a 9-year-old female patient. Her dental pattern was Angle Class II, division 2, right subdivision caused by early loss of the tooth 5.5, right posterior crossbite, and single tooth anterior crossbite (unit 1.2). Because of the large mesialization of unit 1.6, the space recovery using only dental anchorage could produce mesial displacement of the right posterior superior segment, and consequent deviation of dental mid-line, as well as unilateral increase in overjet. In order to avoid these side effects, a compressed open coil spring associated with hybrid palatal expander assisted by mini-implants was used for space recovery and correction of right posterior crossbite.

Descritores:

Dentition, Mixed; Orthodontic Anchorage Procedures; Palatal Expansion Technique

P 73

Código do trabalho: Abor 195

Autores:

DARLLY JANNE ALVES DE AZEVEDO, DAIANA ANDRADE NASCIMENTO, THIAGO CORREIA BARBOSA LEMOS, GUSTAVO TIRADO RODRIGUES

SKELETAL CLASS III ASSOCIATED WITH OPEN BITE TREATED WITH FACIAL MASK AND PREMOLAR EXTRACTION: CASE REPORT**Resumo:**

Class III, despite the low prevalence in the population, represents a great challenge to the orthodontist due to the unpredictability of the jaw growth pattern, which is genetically determined. It can be caused by a maxillary retrusion, mandibular protrusion, or both. Its association with skeletal open bite is an additional challenge. Among the treatments recommended for Class III are maxillary protraction, the orthodontic camouflage or the orthodontic-surgical correction. We report the case of a growing male patient, aged 13 years and 9 months. Skeletal Class III was diagnosed due to maxillary retrognathism associated with anterior and posterior open bite, malar hypoplasia, concave facial profile and dolichofacial pattern, ectopia of maxillary canines, mild maxillary atresia and lingual interposition. The therapy chosen was the disjunction with Hyrax appliance and maxillary protraction with Petit Face Mask, followed by corrective fixed orthodontics with extraction of the first four premolars, to: allow the eruption of maxillary canines and provide a greater retraction in the lower arch. Also used were lingual arch with spurs and Class III intermaxillary elastics. Orthognathic surgery was rejected as a treatment option by the patient. The occlusion reached the functional and aesthetic principles with class III correction and open bite. The facial limitation was fully accepted by the patient who had refused surgical treatment.

Descritores:

Angle Class III Malocclusion; Open Bite; Extraoral Traction Appliances

P 74

Código do trabalho: Abor 198

Autores:

ANSELMO AC, JUNIOR ESB, ALMEIDA HÁ

DISTALIZATION OF MAXILLARY POSTERIOR TEETH USING MINI-IMPLANT AND SLIDING JIG: A REPORT CASE**Resumo:**

The correction of class II malocclusion has a wide therapeutic arsenal, with orthodontic and/or orthopedic resources. When this malocclusion is related to dentoalveolar factors in the maxilla, the extraction or distalization of upper posterior teeth are the most commonly used options in corrective orthodontics. The traditional techniques used for molar distalization depended total or partially on patient collaboration. With the advent of new mechanotherapies, regarding to skeletal anchorage, it has been trying to perform orthodontic corrections with minimal patient cooperation. The present study aims to present a class II malocclusion correction, with unilateral distalization of postero-superior teeth through the use of skeletal anchorage device (mini-implant) associated to a cursor (sliding jig). Lateral radiographs were obtained for cephalometric analysis pre and post-distalization. The results showed molars distal translation of 3mm and inclination of 1°. It was concluded that, through the association of mini-implant and sliding jig, It was possible to obtain a bodily distal movement of posterior teeth without anchorage loss, eliminating the need of patient collaboration.

Descritores:

Orthodontics; Ortodontic Anchorage procedures; Tooth Movement techniques

P 75

Código do trabalho: Abor 199

Autores:

SERPA EO*, FONTANELLA VRC, SERPA GF, PRIETSCH JR.

RELATIONS BETWEEN THE UPPER AIRWAY MORPHOLOGY AND THE SAGITTAL AND VERTICAL SKELETAL FACIAL PATTERN**Resumo:**

This study aimed to evaluate the morphology of the airways in young individuals. This is an observational, cross-sectional retrospective study of children and adolescents 8-18 years searching orthodontic treatment in the course of orthodontics at the Federal University of Rio Grande do Sul. We used lateral reconstructions and cephalometric analysis for classification of sagittal and vertical facial standards. Cone beam computed tomography was used to evaluate the area, volume, higher volume (nasopharynx), lower volume (oropharynx) and area of greatest constriction of the upper airways (UA). The Intraclass Correlation Coefficient confirmed the reproducibility of measurements obtained in this study. A significant difference was found regarding constriction of UA for mesofacial and dolichofacial patients aged between 8 and 12 years. There was no significant difference in the values of area, constriction, total volume, higher volume and lower volume of UA among groups of sagittal classification I, II and III and between groups of dolichofacial and mesofacial vertical classification.

Descritores:

Cone Beam Computed Tomography; Nasopharynx; Malocclusion.

Fonte: FAPERGS - Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul.

P 76

Código do trabalho: Abor 200

Autores:

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COMPARATIVE STUDY BETWEEN ORTHOGNATHIC SURGERY AND THE APPLICATION OF BOTULINAL TOXIN FOR CORRECTION OF GUMMY SMILE**Resumo:**

The objective of this study was to compare the gingival smile changes in patients treated with botulinum toxin (TxB) and who underwent orthognathic surgery. The sample consisted of GROUP 1 with 42 patients (5 males and 37 females), with a mean age of 28.80 years, and GROUP 2 with 23 patients (7 males and 16 females) with a mean age of 29.59 years. To correct the gingival smile, in GROUP 1, diluted solutions of TxB were applied, in GROUP 2 patients were submitted to orthognathic surgery. The measurements of the gingival smile were performed before and after the procedures, and it was defined as the difference of the stoma to the incisal edge of the central incisor obtained through the Software Corel Draw X5 minus the size of the central incisor obtained through dental casts of the patient. The data were obtained from gingival exposure at the beginning of treatment (T1), final (T2) and alteration of gingival exposure (T2-T1). The Fisher's exact test was used for compatibility by gender, the independent t-test for comparison of initial age between the groups and the non-parametric Mann-Whitney test to compare the changes. Results indicated no statistically significant difference of the gingival smile alteration in both procedures. There is no difference in gingival smile changes in patients treated with botulinum toxin or orthognathic surgery.

Descritores:

Gingiva; Botulinum Toxins Type A; Orthognathic Surgery

P 77

Código do trabalho: Abor 203

Autores:

MILAGRES FSA*, PEREIRA TJ, SOUKI BQ.

INTERCEPTOR TREATMENT OF PREVIOUS OPEN BITE WITH USE OF LINGUAL SPUR ASSOCIATED TO VERTICAL-PULL CHIN CUP: CASE REPORT**Resumo:**

Patient C.L.A.S., 7 years and 3 months old was attended in the orthodontic clinic referred by the pediatric dentistry because of the presence of a pronounced anterior open bite. In the anamnesis was reported that the child was in good health, made use of pacifiers up to two years old, without deleterious habits such as digital sucking. Facially the patient presented symmetry, convex profile, absence of lip sealing, lip hypotonia and the inferior third of the face increased. At the clinical examination, she was in the inter-transitional period of the mixed dentition, with atresic upper arch and a parabolic inferior arch, was found to be early loss of the first deciduous upper and second deciduous lower molars, severe space deficiency for permanent teeth and class III molar relationship left subdivision with anterior open bite and posterior crossbite on the left side. The cephalometric measures corroborated the clinical aspect, patient class II ($ANB = 8^\circ$) with the increased vertical pattern ($SN - GoGn = 40^\circ$). The treatment was performed with the extraction of the upper deciduous canines and the use of a transpalatal bar to expand and uncross the molars on the left side. The open bite was eliminated with the use of a fixed lingual spur and vertical-pull chin cup traction. Finally, the negative space discrepancy was corrected with the extraction of elements 14, 24, 34 and 44. After 15 months, satisfactory results were obtained, reaching the objective of interceptive orthodontics reducing the severity of the problem, making treatment in the permanent denture phase simpler.

Descritores:

Open bite; Extraoral Traction Appliances; Orthodontics, Interceptive

P 78

Código do trabalho: Abor 204

Autores:

CURY JLM*, PALOMARES N, CARVALHO FAR, ARTESE F.

REPRODUCIBILITY OF SEGMENTATION PROCESS OF FIRST UPPER AND LOWER MOLARS FROM CONE-BEAM COMPUTED TOMOGRAPHY**Resumo:**

Three-dimensional (3D) segmentation of anatomic structures from cone-beam computed tomography (CBCT) images is an important process of the 3D superimposition methods, which have been increasingly gaining space for the assess of orthodontic treatment outcomes. However, volumetric reconstruction of teeth is a challenging task and its accuracy has never been tested. The aim of this study was to evaluate the intra and inter-rater reproducibility and accuracy of 3D surface models of upper and lower first molars derived from CBCT scans. Also, to assess if metal artifacts, produced by orthodontic brackets, influence on the segmentation process. CBCT scans were taken before and after treatment (presence of brackets) for five patients. 3D models of all first molars were constructed by two operators twice with an interval of 14 days. The equivalent models were then superimposed and color maps were generated to assess the results of the displacements. The results show high intra and inter-observer accuracy for the segmentations of first molars (differences lower than 0.25mm) when brackets were not present, which indicates good reproducibility. Metal artifacts influence on the segmentation processes and the accuracy of 3D surface models of first molars. However, the differences between the models are not clinically relevant.

Descritores:

Cone-Beam Computed Tomography; Imaging, Three-Dimensional; Imaging Process, Computer-Assisted

P 79

Código do trabalho: Abor 206

Autores:

CARNEIRO EL*, PALOMARES NB, MIGUEL JAM.

IN VITRO EVALUATION OF ORTHODONTIC PLIERS STERILIZED WITH PERACETIC ACID AND AUTOCLAVE: A PILOT STUDY**Resumo:**

Sterilization of orthodontic pliers is essential for biosecurity principles, and autoclaving is the most recommended method. Peracetic acid arised as an alternative method, with proved effectiveness in the chemical disinfection and sterilization processes. However, few studies have evaluated its corrosive effect. The present study aimed to compare the corrosive effect of peracetic acid and autoclave on the sterilization process of orthodontic cutting pliers. Four stainless steel cutting pliers with active tips of tungsten carbide from Quinelato and ICE manufacturers were selected and divided into 3 groups: 1) Control (C), with no sterilization; 2) AC group, with 2 tip pliers tips submitted to 100 autoclave sterilization cycles and 3) AP group, with 2 active pliers tips subjected to 100 cycles of sterilization in 2% peracetic acid for 30 minutes. After the sterilization cycles, the active pliers tips were studied via EDX spectrum analysis at a Scanning Electron Microscope. The autoclaving method induced oxidative corrosion only to ICE plier, absent in Quinelato plier. The peracetic acid caused a localized pitting corrosion to ICE and Quinelato pliers, while autoclaving generated a superficial uniform corrosion only to ICE plier. It can be concluded that the ICE and Quinelato pliers present different concentrations of metallic alloys in their composition and for this reason, they suffered different types of corrosion. The sterilization in autoclaving induced less corrosive damage to cutting pliers, in comparison to the immersion in 2% peracetic acid.

Descritores:

Peracetic Acid; Corrosion; Sterilization

P 80

Código do trabalho: bor 207

Autores:

MICHELLY CAVALCANTE LIMA DE OLIVEIRA* DOUGLAS VOSS; JOSÉ THIERS CARNEIRO JÚNIOR;
VANESSA CAVALCANTE LIMA DE OLIVEIRA

ORTHODONTIC AND SURGERY TREATMENT IN A CLASS III PATIENT WITH MULTIPLE DENTAL AGENESIAS AND VIRTUAL SURGICAL PLANNING

Resumo:

The dental Agensis is one of the most frequent congenital anomalies in humans and is characterized by the absence of one or more teeth, is the consensus multiple agenesias are rarer. Patient B, male, 29-year-old Brown, skeletal class III with concave profile. After clinical and radiographic examination diagnosed if the absence of 17 permanent teeth (18, 14, 13, 12, 22, 23, 24, 28, 38, 33, 32, 31, 41, 42, 43, 44, 48). Orthodontic treatment the Decompensated teeth where each jaw was treated independently, with the teeth inside your bone base, obtaining dental parallelism between the roots and crowns, besides the giroversões correction, inclinations, distema closure and opening spaces for future implants. When the treatment came to rectangular steel wire 0.19 x 0.25 was made the new models of maxilla and mandibula and found in occlusion with key medium and lines without occlusal interference. A CT scan of the patient's face and digital models for virtual surgical planning software DDS-Pro. 3 mm was planned advancement of maxilla and 3 mm lower repositioning occlusal Cant fix indenting and correction of mandibular asymmetry. Was used in the trans intermediate splint surgical jaw advancement, and after fixation with mini jaw jaw plates was indented and stabilized in occlusion. The patient found the surgical result very satisfactory because answered their aesthetic and functional, which complaints were mainly the low exposure of upper incisors to smile and the concave facial profile. The patient meets with the Ortho-surgical treatment completed and ready for oral rehabilitation with implants.

Descritores:

Orthognathic surgery; Virtual surgery; Agensis

P 81

Código do trabalho: Abor 208

Autores:

BRILHANTE JV*, AZEVEDO DR, CARDOSO MAG

DISTALISATION OF THE MAXILLARY MOLARS WITH PENDULUM ASSOCIATED WITH SKELETAL ANCHORAGE AND EXTRACTION OF LOWER INCISOR.**Resumo:**

Class II malocclusion may present different skeletal or dental combinations, from a protrusion of the maxilla with normal position of the mandible, retrusion of the mandible with normal position of the maxilla or a combination of both situations. When this malocclusion is of dental etiology, it usually shows a mesialization of the maxillary molars resulting in an anterior positioning of the upper arch teeth, in these cases the orthodontic treatment planning aims at distalization of the posterior and superior teeth until the correction of the molar relationship, and retraction of the anterior teeth. In the correction of Class II dental malocclusion several devices were proposed, among them Pendulum, which when used in a traditional way presents as a major disadvantage the mesialization of the upper anterior teeth. With the advent of temporary anchorage devices or micro screw implants, the professionals connected to Orthodontics have now available a method that assists the anchorage system for orthodontic movements of distalization of the molars, proving the efficiency of micro screw implants in the palatal region. The purpose of this study is to present a clinical case treated in the clinic of the ABO-AP orthodontic specialization course, of a female patient of Standard I, Class II malocclusion and lower anterior crowding, cephalometrically presents a good positioning of the maxilla bony bases And jaw in the horizontal and vertical direction.

Descritores:

Microscrew implants; Esqueletal Anchorage; Class II malocclusions

P 82

Código do trabalho: Abor 246

Autores:

ABRAHAO CAVALCANTE GOMES DE SOUZA CARVALHO; CATARINA MACHADO; SUZANA SOUZA CARVALHO MACIEL

SURGICAL AND ORTHODONTIC TREATMENT OF CLASS III WITH MAXILLARY ADVANCEMENT - CASE REPORT**Resumo:**

The dento-skeletal discrepancies may compromise masticatory function and interfere in temporomandibular joint functions. However, many patients seek treatment in order to correct alterations related to respiratory functions and mainly facial aesthetics. In this context, class III patients receive special attention because of occlusal alterations like posterior crossbite, anterior crossbite, negative overjet, occlusal plane alterations and tooth compensations. Thus, it is fundamental for the correct diagnoses and planning of the case observe if the discrepancy was due to a mandibular protrusion, due to a lack of growth of the maxilla or both of the alterations. The purpose of this paper is to report a case of a 28-year-old patient with a class III dento-skeletal discrepancy due to maxillary deficiency, who was treated with one-segment orthognathic surgery in a forward movement of the maxilla. The patient presented excellent evolution, with correction of the occlusion and a facial harmonization of her profile. As final considerations, it is fundamental in ortho-surgical planning of orthognathic surgery perform a correct diagnosis and treatment planning, and besides construct a good relationship between buco-maxillofacial surgery and orthodontic teams.

Descritores:

Orthognathic Surgery; Orthodontics

P 83

Código do trabalho: Abor 214

Autores:

BARBOSA MS* , VIEIRA EP, QUINTAO CCA, NORMANDO D.

THE CORRELATION BETWEEN TOOTH WEAR AND CHRONOLOGICAL AGE AS A INDICATOR OF ACCULTURATION PROCESS**Resumo:**

Tooth wear is a natural process of human aging. The amount of tooth structure lost varies among different population groups according to the preparation of their food. The use of tooth wear as estimator of chronological age is distinguished from other methods because it is based on an indicator that does not have the potential to remodel, suffering little or no influence of systemic factors and that can be stored for long periods of time. Through a previous study it was concluded that semi-isolated indigenous people with traditional eating habits have a high degree of correlation between tooth wear and chronological age, being possible to predict an individual's age using just the tooth wear. However, when the same methodology was applied to an urban population this correlation could not be observed. The aim of this study is to evaluate the degree of correlation between tooth wear and chronological age in individuals of a local population in Amazon and compare it with the findings of indigenous and urban populations. We evaluated 94 individuals in permanent dentition, with a maximum of eight (8) lost teeth, who lives by the riverside of Tucumanduba river. The analysis of tooth wear was performed using the Mockers, Aubry and Mafart index with a minor modification and the age determination was examined statistically by linear regression analysis. The degree of correlation between tooth wear and chronological age in this population was intermediate to those found in indigenous and urban populations, suggesting that tooth wear can be used as an indicator of acculturation process.

Descritores:

Age Determination by Teeth; Tooth Wear; Acculturation

P 84

Código do trabalho: Abor 219

Autores:

DE-MARCHI, LM*, EMERENCIANO, NG, RAMOS, AL, PROVENZANO, MGA.

EVALUTION OF THE ERUPTION PATH OF THE PERMANENT MAXILLARY CANINES IN PEDIATRIC PATIENTS**Resumo:**

This work studied the displacement of permanent maxillary canines (PMC) during the mixed-dentition period. The sample studied was composed by 53 children between 8 and 14 years old, both male and female, non-syndromic and without special characteristics. This study analyzed the angle formed by long axis of the PMC with the midline (α), the distance of the canine cusp tip from occlusal plane and the relationship between PMC and permanent lateral incisor (PLI). For comparing the regular position of PMC with eruption disorders, a control group composed by 50 patients had been chosen by using the same criteria. Only one calibrated researcher made for the tracings and measurements. From the 53 patients with eruption disorders, 36 were unilateral and 12 bilateral, amounting 70 canines tracings. Furthermore, the mean angle formed by the canine with midline and standard deviation were $26,36^\circ (\pm 8,5)$; the mean distance of canine cusp tip from occlusal plane and standard deviation were 15,51 mm ($\pm 3,4$). There was a statistically significant difference ($p < 0,001$) in the α and d1 values, between test (case) group and control group. Besides, it was observed that 48,57% of the PMC with ectopic eruption showed radiographic overlapping in sector II. Therefore, the angle formed by canine with midline, the distance of canine cusp tip from occlusal plane, and overlapping the canine on PLI can be indications of canine ectopic eruption.

Descritores:

Tooth abnormalities; Tooth eruption, ectopic; Dentition, mixed

P 85

Código do trabalho: Abor 221

Autores:

DUARTE MEA*, MOTTA AFJ, MUCHA JN, MOTTA AT

MORPHOLOGICAL SIMULATION OF INCISAL EMBRASURES: PERCEPTION OF LAYPEOPLE, ORTHODONTIC PATIENTS, DENTISTS AND ORTHODONTISTS**Resumo:**

Objective: To evaluate how different shapes of incisal embrasures influence the perception of the smile aesthetics and if the gingival exposure influence this perception. **Methods:** two photographs of smiles, a male and a female, were digitally manipulated to remove imperfections and asymmetries. A simulation of changes in the incisal embrasures of the four maxillary incisors was made, changing shapes for: rounded, semi-rounded and squared. A shift was made on the upper lip, simulating a smile with and without gingival exposure, resulting in a total of 12 pictures. A presentation in digital media was structured for the evaluation of 240 evaluators that were divided in four groups: laypeople, patients in orthodontic treatment, dentists and orthodontists. The statistical analysis comprised a Multivariate ANOVA, applying a Tukey post-test, with the significance level of 5%. **Results:** The semi-rounded shape was the preferred one in general. The gingival exposure had statistically significant influence in the aesthetic perception of the embrasures shapes. There was statistically significant difference between patients and orthodontists. **Conclusions:** The shape of the incisor embrasures and gingival exposure had statistically significant influence on the aesthetic perception of the evaluators, and the shape presented a higher influence in the different perception.

Descritores:

Esthetics; Smile; Orthodontics

P 86

Código do trabalho: Abor 223

Autores:

MIRANDA PMB*; BRANDÃO NMCB; MAUÉS CPR; CAPELLI JÚNIOR J.

IMPACT OF EARLY SURGERY ON TREATMENT OF SKELETAL CLASS III MALOCCLUSION - CASE REPORT**Resumo:**

The appropriate timing for treatment of growing patients with dentofacial deformity is a challenge to orthodontists. Non-surgical therapy or conventional surgery can lead to psychosocial problems, given the importance of facial aesthetics for interpersonal relationships. Therefore, the aim of this case is to demonstrate the benefits of early surgery and the stability obtained in the present clinical case after 5 years of follow-up. A 12 years old and 7 months girl has arrived at the orthodontic clinic complaining of her mandibular protrusion. Clinically, it was observed Angle class III malocclusion, lingual crossbite from the element 16 to 24, -2 mm overjet, concave profile, increased height lower face and mandibular asymmetry to the left side. Her mother reported being motivated to seek treatment for her daughter after watching a report about craniofacial deformities. The cephalometric evaluation showed a skeletal class III malocclusion ($ANB = -2^\circ$ and $Wits = -10$ mm) caused mainly by mandibular prognathism ($SNA = 86^\circ$, $SNB = 88^\circ$), and vertical growth tendency ($FMA = 29^\circ$, Y axis = 57°). Although the facial impairment was not extreme, the patient's main complaint emphasized her desire for change, leading us to the choice of an early orthognathic surgery. Posttreatment evaluation showed an improvement in facial harmony, functional occlusion and great satisfaction of the patient. It was concluded that early surgery therapy was essential to improve the patient's self-esteem and remained stable after 5 years of follow-up considering the choice of an early surgery.

Descritores:

Malocclusion, Angle Class III; Orthognathic Surgery; Orthodontics

P 87

Código do trabalho: Abor 224

Autores:

ALVES LS

ANTERIOR SUBAPICAL OSTEOTOMY IN THE TREATMENT OF A PATIENT WITH ROOT RESORPTION: CASE REPORT**Resumo:**

This case report describes the ortho-surgical treatment of a female patient, 18 years old, referred by speech therapist and dissatisfied with previous orthodontic treatment. The patient presented a skeletal Class I, vertical pattern, convex facial profile, anterior open bite of 4 mm and incisors external apical root resorption. The pre-operative orthodontic treatment consisted of segmental alignment and leveling, exodontia of elements 14 and 24, followed by retraction of 13 and 23. The surgical intervention consisted of maxillary osteotomy in three segments, anterior subapical mandibular osteotomy and transsurgical exodontia of 34 and 44. Light orthodontic forces were applied to the incisors throughout the treatment and surgical repositioning of the segments was chosen so as not to aggravate the root resorption. The total duration of treatment was 5 years. In the retention phase, a superior Wraparound with lingual positioner and lower 3X3 fixed retainer was installed. After 20 months of retention, stability can be observed, with adequate intercuspitation and overbite, improvement in facial harmony and absence of aggravation of root resorption. The results of this case demonstrate an alternative in the treatment of patients with severe root resorptions associated with aesthetic and functional changes.

Descritores:

Open bite; Orthognatic surgery; Root resorption

P 88

Código do trabalho: Abor 226

Autores:

DE SOUZA FERREIRA V*, ANDRADE JR I

TREATMENT OF CLASS II MALOCCLUSION WITH FORSUS APPLIANCE AND SEGMENTED MECHANICS: A CASE REPORT**Resumo:**

Class II malocclusion treatments that do not involve patient cooperation have been extensively used in Orthodontics. Between the countless appliances used for this purpose, the Forsus appliance is the one that has gained more popularity between professionals. Using this appliance combined with the mechanics of the segmented arch technique, which allows the orthodontist a system of determined forces, transforms this therapeutic approach into an important skill for the daily clinical practice. This case report describes the treatment of a 12-year-old girl presenting a unilateral Class II malocclusion, with a severe deep overbite and incisor flaring. The segmented mechanics was used for the leveling of the Curve of Spee, with control of the projection of the inferior incisors, while the Forsus appliance offered an anteroposterior correction of the malocclusion. The treatment was concluded with success after 30 months, establishing an Angle class I molar relationship, with adequate overjet and overbite and normal functional guides, allowing the patient an ideal masticatory function and an improvement in facial esthetics.

Descritores:

Orthodontics; Interceptive; Angle Class II

P 89

Código do trabalho: Abor 289

Autores:

COSTA JV*, RAMOS AL, IWAKI FILHO L

TOMOGRAPHIC EVALUATION OF THE ZYGOMATIC-MAXILAR BONE CORTICAL OF PATIENTS DOLIC, MESO AND BRAQUIFACIAIS**Resumo:**

The zygomatic-maxillary bone region has been used for insertion of temporary orthodontic anchorage devices, as well as fixation of surgical miniplates. The objective of this study was to evaluate the thickness of the cortical bone by concomitant computed tomography in different skeletal patterns. A total of sixty-two patients, of both genders, divided into three groups were evaluated according to the thickness of the cortical bone and the skeletal facial pattern. Measurements were performed in the region of the anterior slope of the zygomatic process of the maxilla on both sides on conical beam computed tomography images. The results indicated that there was no significant correlation between the thickness of the cortical bone and the skeletal pattern. However, no patient in the hyperdivergent group presented cortical thickness greater than 2 mm and no patient in the hypodivergent group presented cortical thickness of less than 1 mm. Although the facial pattern does not correlate significantly with the thickness of the cortical bone of the zygomatic-maxillary region, it indicated a tendency to smaller thicknesses in the hyperdivergents, but an individualized analysis should be considered when planning to use this bone availability for the temporary anchorage devices, as well as insertion of surgical screws.

Descritores:

Orthodontics; Orthodontic Anchoring Procedures; Cone Beam Computed Tomography

P 90

Código do trabalho: Abor 261

Autores:

DIOGO MARQUES SAPATA*, ADILSON LUIZ RAMOS, DAVID NORMANDO, RENATA CORRÊA PASCOTTO

DEBRI DEPOSITION AND THE NICKEL-TITANIUM WIRE DEACTIVATION FORCE**Resumo:**

The objective of this study was to evaluate in vitro the accumulation of biofilm and the deactivation force of Nickel-Titanium (NiTi) wires before and after oral exposure. Four brands of 0.016 “NiTi orthodontic arches were examined before and after oral exposure for 4 weeks. Six segments of wire with 30mm of length of each manufacturer were tested in a device with four self-ligating brackets, 0.022”, adapted in the universal test machine to evaluate the deactivation force, between 0.5 and 3mm deflection. The presence of biofilm on the surface of the wires was evaluated under Scanning Electron Microscopy, before and after oral exposure. Wilcoxon and Kappa test for biofilm scores, ANOVA repeated measurements at three criteria (Bonferroni post test) and linear regression between biofilm and deactivation force were applied. Oral exposure promoted moderate to severe accumulation of debris on the surface of the arches and caused a reduction in the deactivation force for the Ormco and GAC brands, however maintaining them at adequate levels. The MORELLI and ORTHOMETRIC arches did not suffer significant reduction of the deactivation force, maintaining them at high levels of force after oral exposure. Oral exposure during one month may cause a significant alteration in the strength dissipation of NiTi wires due to biofilm accumulation.

Descritores:

Orthodontic Wires; Surface Properties; Orthodontics

P 91

Código do trabalho: Abor 229

Autores:

CARDOSO PC, MENCARINI NP, CHAVES LB, ARTESE F

INDICATION OF NON-PATHOLOGICAL THIRD MOLARS' EXTRACTION: ORTHODONTISTS AND MAXILLOFACIAL SURGEONS' CRITERIA**Resumo:**

The extraction of pathological third molars has clear indications. However prophylactic third molar extraction, defined as surgical removal of these teeth in the absence of signs and symptoms, remains controversial. Two categories of specialists who routinely face the dilemma that involves the decision to extract or monitor pathology free third molars are orthodontists and maxillofacial surgeons. The aim of this study is to investigate whether there are differences in the opinion of orthodontists and maxillofacial surgeons to removal indication of these teeth. Online questionnaire with 24 cases of asymptomatic and disease free third molars were presented to former postgraduate students in Orthodontics and Oral and Maxillofacial Surgery at the University of Rio de Janeiro State. The questionnaire was completed by 89 specialists. Most surgeons indicated immediate extraction (76%) for the cases. Most orthodontists (56%) opted for clinical and radiographic follow-up. Data were compared using the chi-square test and statistically significant differences were found. Surgeons tend to have a more interventionist conduct in young patients then orthodontists. Orthodontists tend to prophylactic extract third molars positioned horizontally. It can be concluded that there is a difference in the conduct of asymptomatic and disease free third molars between oral maxillofacial surgeons and orthodontists.

Descritores:

Third molar; Tooth extraction; Ortodontics

P 92

Código do trabalho: Abor 230

Aurores:

SANTOS JRP*, SANTOS BRM, UZEDA KRT

ORTHOPANTHOMOGRAPHIC EVALUATION OF DENTAL ANGULATIONS IN INDIVIDUALS CLASS I AND CLASS II**Resumo:**

Knowledge of dental positioning is essential in the diagnosis and elaboration of the correct treatment plan. The aim of this study was to compare mesio-distal angulation among patients with Class I and Class II malocclusion. The study was based on a retrospective radiographic and consisted of 40 orthopantomographic radiographs were evaluated, 20 of individuals with Class I and 20 with Class II. In the selection of these patients the facial profile in photographs and the occlusion in models were evaluated to classify them in the 2 groups. The subjects had to present themselves in the permanent dentition, not having previously used orthodontic appliance and did not presenting agenesis. In the radiographic analysis, the angulation of the canines, premolars and lower molars of both groups were measured in relation to the intermental line. The statistical analysis used was the t test for independent samples at a significance level of 0.05. The mean angles of teeth 47, 46, 45, 44, 43, 33, 34, 35, 36, 37 for Class I were respectively $58,12 \pm 7,47$, $66,01 \pm 7,46$, $77,92 \pm 3,41$, $85,68 \pm 5,03$, $87,39 \pm 4,77$, $87,19 \pm 6,96$, $84,90 \pm 6,53$, $76,29 \pm 4,01$, $67,74 \pm 6,8$, $59,93 \pm 8,17$ and for Class II were $58,96 \pm 6,87$, $62,80 \pm 7,63$, $74,92 \pm 8,16$, $85,06 \pm 7,03$, $90,05 \pm 6,13$, $89,65 \pm 5,39$, $84,42 \pm 6,73$, $75,19 \pm 6,41$, $64,10 \pm 6,45$, $60,77 \pm 6,72$. There was no statistically significant differences for the angular measurements when comparing the respective teeth of individuals with Class I and Class II. It was concluded that there was no difference in the angulation of the lower teeth for Class I and Class II malocclusion.

Descritores:

Malocclusion Angle Class II; Diagnosis; Dental occlusion

P 93

Código do trabalho: Abor 233

Aurores:

ETO HC*, DRUMMOND AF, FRANÇA EC, NEVES LS

ORTHODONTIC TREATMENT WITH SEVERE CROWDING WITHOUT EXTRACTION OF TEETH**Resumo:**

In orthodontics, severe crowding is usually treated at the expense of permanent tooth extraction. This study reports the treatment of the D.D.S.G male patient, 20 years old, with a severe crowding, in a concave face, against indicating tooth extraction. Initially, the alignment and leveling of the upper arch was achieved until a steel wire was reached, followed by alignment and leveling of the lower arch. For this, Straight-wire mechanics with a conventional wire sequence was used, avoiding the use of rectangular wires at the end of the active phase of the mechanics, resulting in an improvement of vertical and horizontal overpasses, besides the planning of spee curves in the upper arcs And lower. After the end of the active phase of orthodontic mechanics, the restraints were made, superior movable and fixed 3x3 inferior. The crowding was dissolved with dental compensation movements, and this treatment is being followed up with success results and without relapse until one year after completion of orthodontics

Descritores:

Crowding; Extraction; Straight-wire

P 94

Código do trabalho: Abor 234

Autores:

MORAES, PACA, SALES IT, BRANDAO AMM, NEVES MG, BRANDAO GAM

LONGITUDINAL EVALUATION OF THE IMPACT OF ORTHODONTIC TREATMENT ON INDICATORS OF QUALITY OF LIFE**Resumo:**

The objective of this study was to evaluate the impact of orthodontic treatment on the quality of life related to malocclusion and self-esteem of adult patients who started orthodontic treatment. The sample consisted of 68 adult patients (between 28 and 62 years old), of both sexes, who started orthodontic treatment. The Oral Impact on Daily Performances (CS-OIDP) index was used to assess quality of life and the Global Self Evaluation (GSE) scale for self-esteem assessment. The questionnaires were applied in two phases, T1 (beginning of treatment) and T2 (6 months later). To compare the changes between T1 and T2, the data obtained from the GSE scale were evaluated by paired t-test, and quality of life questionnaire data were evaluated through the application of descriptive statistics. The results showed significant worsening in the eating and oral hygiene domains and improvement in the other 6 domains between the evaluation interval. In general evaluation, orthodontic treatment had a positive impact on quality of life ($p = 0.001$) and improvement on self-esteem indicators (GSE T1 = 7.72 ± 4.11 T2 = 5.41 ± 3.54 | DIF -2.3 | (p).

Descritores:

Orthodontics; Malocclusion; Quality of Life

P 95

Código do trabalho: Abor 235

Autores:

NASCIMENTO VC*, MARTINS MM, VILELLA OV, VILELLA BS.

IMPACT ON SELF-ESTEEM AND QUALITY OF LIFE IN AN ADULT PATIENT AFTER ORTHODONTIC TREATMENT REQUIRING ORAL REHABILITATION**Resumo:**

The search for orthodontic treatment between adult patients has increased, especially those who needs oral rehabilitation. It is necessary, however, to focus on the individualization, looking for interactions between the specialties, preserving individual characteristics for each patient, including psychological aspects related to the malocclusion. From the patient's point of view, the successful treatment is one that has met your expectations. In addition to a new smile, the masticatory capacity improves most of the time, contributing to increase the quality of life (QoL). The aim of this work is to assess the relevance of complex treatments on the social improvement in the welfare and self-esteem of adult patients. A clinical case is presented, showing an adult patient who underwent differential orthodontic treatment to bilateral posterior crossbite which required to cope with the use of a superior removable partial denture (SRPD). An individualized therapy was performed without interrupting the use of the SRPD and with no bonded accessories. This approach avoid difficulties to removing and repositioning of the SRPD. During the treatment it was observed an improvement on the face and on the smile, and an increase in the patient's satisfaction. The Rosenberg Self-esteem Scale and a Quality of Life questionnaire based on the Oral Health Impact Profile (OHIP-14) were used before and after alignment, and at the end of treatment. The results of the treatment were able to increase the self-esteem and the QoL of the patient. Therefore, it can be concluded that the perception of the appearance affects the social behavior and happiness of the individual.

Descritores:

Self-esteem; Quality of life; Orthodontics

P 96

Código do trabalho: Abor 236

Autores:

ROCHA R*, MACHADO R, RITTER DE, DERECH C

PROFILE OF IMAGING REQUEST IN THE DIAGNOSIS AND PLANNING STAGE IN ORTHODONTICS: A RADIATION DOSE EVALUATION.

Resumo:

Were evaluated requests for initial x-rays/tomographs of by 135 specialists in Orthodontics, requested for five clinical cases with malocclusions frequently treated in the orthodontic practice. Results: The panoramic x-ray and lateral ceph were the most requested examinations in all cases. For CC4 and CC5 there was significant increase in the requests of CBCT (23.0% and 49.6%) compared to the others. The effective dose was 3.5 to 5.1 times greater in cases in which CBCT was requested. There was a reduction of up to 30.7% in the effective dose when conventional x-rays was compared to CBCT. Conclusion: The doctors still routinely use x-ray for diagnosis and planning; however, in cases of impacted canines and severe crowding there is a greater tendency to use the CBCT. The CBCT exposes individuals to doses 3.5 to 5.1 times greater than common x-rays. The association of CBCT and x-rays allowed reduction in the tomographic FOV, reducing the effective ! dose in up to 30.7%.

Descritores:

Cone bean tomography; Diagnoses; Orthodontics

P 97

Código do trabalho: Abor 238

Aurores:

FERREIRA,ALSB*, DRUMMOND AF, FRANÇA EC, NEVES LS

COMPENSATORY BIOMECHANICS OF CLASS III MALOCCLUSION – A CASE REPORT**Resumo:**

The aim of this study is to describe a protocol for compensatory treatment of Class III malocclusion, in adult patient Standard 3 of Capelozza with Roth prescription brackets. A.S.M. male patient, 26 years old, sought orthodontic treatment, with the main complaint related to the aesthetics of his smile. In the anamnesis the patient reported that he was evaluated by other professionals and they indicated ortho surgery, but he was satisfied with his face and was not willing to do any treatment that was not exclusively orthodontic. After clinical and radiographic examinations, a compensatory orthodontic treatment of Class III malocclusion was proposed. The case was treated with self-ligating device, Roth prescription, with differentiated bonding in lower canines and Class III mechanics with the use of intermaxillary elastics. After 21 months of treatment, a functional occlusion and satisfactory aesthetics smile were achieved, and also a small facial improvement due to vestibular inclination of the upper incisors. The patient was satisfied with the results and reported that they exceeded their expectations.

Descritores:

Class III; Self-ligating; Compensatory

P 98

Código do trabalho: Abor 240

Autores:

SERRUYA AP, MG NEVES, ALMEIDA HA, BRANDAO AMM, BRANDAO GAM

NON-SURGICAL TREATMENT OF SKELETAL OPEN BITE WITH ANCHORAGE MINIPLATES AND POSTERIOR BONE REMODELING

Resumo:

The treatment of facial deformities and malocclusions, such as anterior open bite, was one of the first applications of miniplates for orthodontic anchorage. The use of this treatment system reduces the number of patients referred to orthognathic surgery and simplifies many problems. This approach applies intrusive forces to posterior teeth, and the mandible undergoes counterclockwise rotation, which decreases lower facial height and advances the projection of hard and soft tissue pogonions. This work describes a clinical case of a patient with skeletal open bite treated with Mini-plates anchorage for posterior bone remodeling

Descritores:

Open bite; Orthodontics anchorage procedures; Mini-plates

Fonte: PROEX – UFPA

P 99

Código do trabalho: Abor 244

Autores:

ALMEIDA SC*, GONÇALVES FLN, GONÇALVES PFS, SILVA AA

ORTHOGNATHIC SURGERY AND THE IMPACT OF PSYCHOSOCIAL BEING IN CLASS III PATIENT WITH VERTICAL EXCESS: A CASE REPORT**Resumo:**

Orthognathic surgery treats dentofacial deformities and enables the improvement of respiratory and masticatory functions by correcting occlusion, favoring improvement of self-esteem, personal satisfaction and the psychosocial well-being of the individual. This treatment, however, is not free of flaws and requires the orthodontist and the maxillofacial surgeon to conduct it, whose purposes are stability of the procedure, orofacial health, attend functional occlusion and facial and dental harmonization. Female patient, 21 years old, skeletal Class III, with vertical excess, symmetrical and without deviation from the occlusal plane, presented 06mm of negative overjet and 10mm of gingival exposure when smiling, which was her main complaint. She was submitted to orthognathic surgery after a year and a half of orthodontic treatment, with mandible retraction, advancement and maxillary impacting. She was satisfied with the result, having a convergence between her expectation and the results obtained, showing improvement in chewing, speech, breathing, facial aesthetics. It is very important to carry out a well-planned orthodontic-surgical treatment, where the patient's expectations are reached along with the benefits of the treatment proposed by the professionals with significant changes in the life of these patients, in the functional, aesthetic and psychosocial aspects

Descritores:

Orthodontics; Orthognathic Surgery; Patient Satisfaction

P 100

Código do trabalho: Abor 245

Autores:

BARRIGA ALC, IT SALES, MG NEVES, ALMEIDA HA, BRANDAO AMM, BRANDAO GAM

MALOCCLUSION AND ITS RELATIONSHIP WITH QUALITY OF LIFE IN ADULTS**Resumo:**

Aesthetic appearance plays an important role in social interactions and psychological well-being and is currently one of the main motivational factors for orthodontic treatment. The objective of this study was to investigate the severity of malocclusion, self-perception of malocclusion, satisfaction with dental esthetics and its impact on quality of life. The sample consisted of 110 adult individuals (from a universe of 239) of both sexes, who sought orthodontic treatment. The occlusion evaluation was performed using the IOTN (DC) index. The data collection included socio-demographic variables and the subjective variables evaluated by the instruments: Index of Orthodontic Treatment Need - Aesthetic Component - AC; Orthodontic Aesthetic Subjective Impact Score - OASIS; Patients' Satisfaction with Dental Esthetics; Treatment Motivation survey; Oral Impacts on Daily Performances - OI DP. The results were performed through bi and multivariate descriptive and inferential statistics. The results indicated a statistically significant relationship between the presence of impact on daily activities and the severity of malocclusion, self-perceived need for treatment, dissatisfaction with dental aesthetics, and motivation for orthodontic treatment. The multivariate analysis indicated that the presence of severe malocclusion, the perception of mild malocclusion, dissatisfaction with dental aesthetics and the search for treatment for aesthetic reasons is associated with a higher prevalence of impacts on the quality of life of adults seeking orthodontic treatment

Descritores:

Malocclusion; Motivation for Orthodontic Treatment; Quality of life

Fonte: ROPESP – UFPA

P 101

Código do trabalho: Abor 212

Autores:

MOREIRA PEO*, TEIXEIRA SF, BRANDÃO AMM, NEVES MG, BRANDÃO GAM

PERCEPTION OF DENTISTS ABOUT MALLOCLUSION AND THE MOTIVES FOR INDICATION OF ORTHODONTIC TREATMENT**Resumo:**

This study verified if dentists know to identify the characteristics of malocclusion and what motives lead them to indicate orthodontic treatment. Thirteen orthodontics cases based on the Dental Health Component (DHC) of the Index of Orthodontic Treatment Need (IOTN) were selected. Each case presented intra and extra oral photos, panoramic radiographs and cephalometric exam. A questionnaire containing questions about occlusion and aesthetics was applied to thirty dentists. After the data collection, the data were submitted to Chi-square test (X^2) and Kappa (K) test. This study verified that 56.66% of the professionals evaluated performs the occlusion analysis and that 69.9% evaluated the dento-facial aesthetics. Anterior cross-bite (63.3%), Crowding (69.9%), anterior open bite (86.9%), impaction (73.3%) and diastema (79.9%) were the most recognized types of malocclusion by professionals (α).

Descritores:

Malocclusion; Orthodontics; Treatment

P 102

Código do trabalho: Abor 247

Autores:

MOREIRA PEO*, TEIXEIRA SF, BRANDÃO AMM, NEVES MG, BRANDÃO GAM

PERCEPTION OF DENTISTS ABOUT MALLOCLUSION AND THE MOTIVES FOR INDICATION OF ORTHODONTIC TREATMENT

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Descritores:

Malocclusion; Orthodontics; Treatment

P 103

Código do trabalho: Abor 249

Autores:

OHASHI ASC*, PIZZATO CS, VIANNA MRM, MENEZES LM

EMBRYOTOXICITY AND TERATOGENESIS OF ORTHODONTIC ACRYLIC RESIN: STUDY IN ZEBRAFISH (DANIO RERIO).**Resumo:**

Acrylic resin is a widely used material in dentistry and there is a dearth of studies evaluating toxicity in in vivo models. Zebrafish has a number of characteristics that make it an excellent model for toxicology studies in early development, such as being a vertebrate organism, permeability to small molecule, and rapid external development. Thus, this study aimed to verify, in vivo, the embryotoxicity, teratogenic power and neurological effects of the orthodontic acrylic resin using Zebrafish teleost as model organism. The animals comprised a single experimental group, divided into subgroups according to the three doses of the substance tested (1mg / l, 0.1mg / l and 0.01mg / l), one absolute control group (water) and a vehicle control group (0.1% DMSO) used to dilute the resin. In the 5th post-fertilization day, morphological analysis, cardiac rhythm, exploratory and cognitive capacity tests and apoptosis measurement were performed. The tests were performed in triplicates and compared by ANOVA and post-hoc Tukey. Statistically significant differences were found between DMSO and treated groups for heart rate, cognitive responsiveness and cellular apoptosis, whereas survival, hatching rate and other parameters did not show significant differences. Chronic exposure to acrylic resin may be associated with decreased cognitive ability and cardiac rhythm and an increase in the level of cellular apoptosis in zebrafish.

Descritores:

Acrylic resins; Teratogens; Zebrafish

P 104

Código do trabalho: Abor 250

Autores:

BRANDÃO, N.M.C.B*; MIRANDA, P. M. B; MAUES, C.P. R; ALMEIDA, R. C

CONTROLLED TOOTH MOVEMENT TO CORRECT AN IATROGENIC PROBLEM: A FOLLOW-UP OF 12 YEARS**Resumo:**

The “ugly duckling” stage occurs around 8-10 years, and is characterized by diastemas in the upper arch. It is known that these spaces tend to close naturally and it is not required intervention. The aim of this case is to highlight the importance of correct diagnosis, to alert about the physiological correction and to emphasize that intervention in this phase is not necessary. A 9-year-old male patient, accompanied by his mother, came to the department of Orthodontics and reported that he was already in treatment regarding closing the upper spaces. He had mixed dentition, Class I molar relationship, cross bite of 12 and 22 and extreme extrusion of 11 and 21 with gingival recession and mobility. His mother mentioned that she was instructed to place a rubber band around the upper central incisors to close the space. However, during the treatment she noticed that the elastics disappeared and reported that to the dentist that instructed her to continue placing others to replace those elastics. But actually, the elastics slid up along the periodontal ligament space. This situation caused bone loss and gradual teeth extrusion. Therefore, it was done a surgical removal of the sub gingival elastics and after that decided to intrude and align the incisors improving the bone support in the affected region after. At the end of treatment the aesthetic was improved, the molar relationship was preserved and the periodontal situation was restored. After 3 years of follow-up, significant bone formation was observed on the mesial surface of the teeth. In conclusion, an incorrect treatment plan can, sometimes, cause irreversible consequences that can be only avoided by the correct diagnosis and follow-up.

Descritores:

Dentition Mixed; Iatrogenic Disease; Tooth extrusion

P 105

Código do trabalho: Abor 251

Autores:

FARIA LF*, FREITAS LRP, PANTUZO MCG, OLIVEIRA DD

SURGICAL TREATMENT OF ASYMMETRIC CLASS III MALOCCLUSION: CASE REPORT**Resumo:**

This presentation aims to provide a brief report of the ortho-surgical treatment of a 23-year-old female patient with severe asymmetric Class III malocclusion. The patient came to the orthodontic office with aesthetic complaints, symptoms of pain in the face and neck regions, and clicks in the temporomandibular joint (TMJ) region. She had already undergone conventional orthodontic treatment for camouflage. The proposed treatment was the installation of fixed upper and lower appliances, preoperative orthodontic treatment and surgery for maxillary advancement and asymmetric mandibular setback. During the pre-surgical treatment, the patient reported symptoms of pain in the TMJ region and, therefore, was referred to a specialist in Temporomandibular Dysfunction and Oro-Facial Pain (TMD), who suggested the use of occlusal plaque to improve the relation of Temporomandibular Joint. After TMJ stability was achieved, the patient was referred for surgery. The results were satisfactory, but the total asymmetry correction was not reached due to its severity.

Descritores:

Facial asymmetry; Orthodontics; Retreatment

P 106

Código do trabalho: Abor 253

Autores:

HORTA MFR*, CAVALEIRO RMS

AUTISTIC SPECTRUM DISORDER AND ORTHODONTIC TREATMENT: A POSSIBLE INTERACTION - CLINICAL CASE REPORT**Resumo:**

Autism Spectrum Disorder is one of the most common invasive developmental disorders in which there is a breakdown in the fundamental processes of socialization, communication, and learning. The growing number of children and adults with this condition highlights the need for the multiprofessional interaction of dental specialties including Radiology, Dentistry for special patients, Surgery and Orthodontics. Whenever communication and understanding of the autistic patient occurs in the family and school context, and the patient allows a panoramic radiograph, orthodontic treatment may also be performed. The clinical case describes an assisted patient from the 8 years of age, referred by specialist and who required multiprofessional dental interaction for the removal of two supernumeraries in the anterosuperior region, which prevented the eruption of the left central incisor, causing malocclusion and impairment of aesthetics and function. In the hospital setting the supernumerary elements were removed, and the tooth 21 was surgically accessed and subjected to traction, by means of steel ties and TMA springs welded in modified transpalatal bar. Orthodontic treatment allowed eruption and repositioning of element 21, as well as correction of dental malocclusion. Early diagnosis, multidisciplinary approach, motivation and adherence of the patient and his family allied to behavioral management techniques allowed improvements in oral health, aesthetics and in the social and behavioral interaction of the patient.

Descritores:

Autistic Disorder; Malocclusion; Tooth Movement Techniques

P 107

Código do trabalho: Abor 254

Autores:

MEIRELES BRS*, SANTOS JRP

EVALUATION OF MANDIBULAR GROWTH AFTER ORTHODONTIC TREATMENT OF A PATIENT WITH MALOCCLUSION CLASS II**Resumo:**

Evaluation of mandibular growth after orthodontic treatment of a patient with malocclusion Class II. Early treatment of Class II malocclusion becomes advantageous for providing orthopedic effects, redirect the development of the jaw to correct the discrepancy between the apical bases. In this work the clinical case of a 12-year-old male patient treated in two phases will be presented, firstly with the Bionator Balters appliance, followed by conventional fixed orthodontic treatment (2 phase). The aim of the treatment was the leveling of the pronounced Spee curve, improvement of the sagittal relationship between the jaws and correction of the crowding (main complaint of the patient). The cephalometric measures evaluated SNA, SNB, ANB, SN. GO-GN were obtained in lateral cephalograms taken 2 and 5 years after orthodontic treatment. Evaluating the patient's final records, it can be verified that the proposed objectives were reached, since occlusion stability was observed due to the maintenance of apical bases (ANB) and SNB angle, the improvement of the vertical overjet during the treatment was shown to be stable, leading us to ratify the importance of early treatment in these skeletal dysplasias, both for aesthetic and functional benefits.

Descritores

Mandibular Advancement; Orthopedics; Angle Class II

P 108

Código do trabalho: Abor 256

Autores:

OLIVEIRA DD, NAVES LAA*, OLIVEIRA PM, PANTUZO MCG

ORTHO-SURGICAL APPROACH FOR RETREATMENT OF ADULT PATIENT MANDIBULAR SKELETAL CLASS II ASSOCIATED WITH ANTERIOR OPEN BITE**Resumo:**

The ortho-surgical intervention for many adult patients, in cases of Class II standard dentofacial deformities, becomes essential to obtain satisfactory aesthetic, functional and psychological results. Therefore, the purpose of this article is to illustrate the case of the female patient M.M.H., 21 years old, whose main complaints were “crooked teeth”, “chin too far behind” and “my mother has already operated orthognathic”. The patient has already undergone compensatory orthodontic treatment, has excessive gingival exposure when smiling, anterior open bite, increased lower third and convex profile. In view of the diagnosis presented and the patient’s main complaint, the proposed new planning was an ortho-surgical treatment composed of a preoperative orthodontic stage with dental decompensation followed by orthognathic surgery based on maxilla impaction and mandibular counterclockwise self-rotation and, finally, a post- surgical orthodontic stage. Thus, a good antero-posterior positioning of the mandible with respect to the maxilla was achieved, adequate functional guidelines were established and the patient’s aesthetic complaints were met.

Descritores:

Retreatment; Orthognathic surgery

P 109

Código do trabalho: Abor 258

Autores:

ROBERTO FB, VIEIRA PC, WERKEMA FS, OLIVEIRA DD

SURGICAL APPROACH TO TREATMENT OF SLEEP APNEA SYNDROME IN SKELETAL CLASS II PATIENTS WITH MANDIBULAR DEFICIENCY**Resumo:**

Sleep apnea associated with snoring is a condition that causes great discomfort to adult patients and many times sends them looking for orthodontic treatment. This disorder happens due to airway obstruction during sleep and assaults mainly patients with skeletal mandibular Class II. The aim of this report is to present the case of a female patient, 33 years old, diagnosed with episodes of moderate sleep apnea and intense snoring, causing a nuisance to both the patient and her family. The patient had skeletal class II and reported she had already undergone an orthodontic treatment that lasted 3 years and involved the extraction of first premolars during her teenage years. As for the occlusion, the patient presented a class II canine malocclusion, with tight overjet and buccal tipped inferior incisors, but was very stable. The treatment plan proposed to the patient was composed of surgical intervention with bimaxillary advancement of 5 to 6 mm associated with counterclockwise rotation of the occlusal plane. The case was finalized in a stable manner and with a class I facial profile. After the resolution of the case, the patient reported great improvement in her sleep patterns, showing that it is possible to better the quality of life of patients who suffer from sleep apnea syndrome through well conducted surgical and orthodontic treatment.

Descritores:

Sleep apnea syndromes; Orthognatic surgery; Retreatment

P 110

Código do trabalho: Abor 259

Autores:

CAMPOS FDS*, MORDENTE CM, PANTUZO MCG, OLIVEIRA DD

MULTIDISCIPLINARY TREATMENT OF AN ADULT PATIENT: A CASE REPORT**Resumo:**

Treatment of adult patients can be a challenge task to the orthodontist since they often present missing teeth, loss of periodontal tissue and extensive restorations. Therefore, a multidisciplinary approach is necessary to achieve satisfactory esthetics and function. The aim of this case report is to illustrate a multidisciplinary treatment performed in a 55 years old woman, which presented the following chief complain: "I want to improve the esthetics and function of my teeth". She presented facial symmetry, passive lip seal, good verticals proportions, high smile line and straight profile. Moreover, she presented molar and canine Class II relationships, spaces in both arches, an exaggerated overjet, absence of 47 and the prosthesis of 23 invading the biological space. The treatment was performed using fixed appliances in both arches. After leveling and aligning the mandibular spaces were closed with mesialization and the Class II relationship improvement was achieved using elastics. The elements 11 and 21 were intruded to improve the gingival margin level while 12 and 23 were extruded to improve their periodontal condition. The element 48 was verticalized using a cantlever, taking the place of the absent 47. At the end of the treatment the fixed appliances were removed and removable retentions were installed. Finally the patient was able to perform the restorative treatment. The multidisciplinary treatment was conducted with success, achieving realistic objectives, which were mastication without pain, periodontal health and a satisfactory smile esthetics.

Descritores:

Orthodontics; Periodontics; Dental Prosthesis

P 111

Código do trabalho: Abor 262

Aurores:

COSTA DDC*, OLIVEIRA DD, OLIVEIRA PM, VILLANOVA LG.

ORTHODONTIC RETREATMENT IN PATIENTS WITH LATERAL AGENESIA: CLINICAL CASE REPORT.**Resumo:**

The demand for orthodontic retreatment has increased considerably in recent years. Especially in treated adult subjects who underwent a first treatment when young and are dissatisfied with the achieved condition. In the case of lateral incisor agenesis, the planning of space correction occurs at an early age, which often leads to a future questioning if the option chosen was the correct one. This situation is demonstrated in a clinical case, in which the patient seeks the third orthodontic treatment, because he is not satisfied with the results obtained until then. The first intervention occurs in the pubertal period and the planning established is the opening of space for prosthetic replacement of the absent incisors. The treatment is completed and a removable retainer with stock teeth is maintained until the end of growth. At this point, discontented with the result, the patient seeks a second orthodontic treatment. However, a new opening of anterior space and incorporation of aesthetically deficient temporary supplies are instituted, causing discomfort and embarrassment to the individual. This leads to the search for a third therapeutic option. In this, the present spaces are discussed together with the professional responsible for the implants and prostheses. The space for the lateral region is established and there is a need for mesialization of canines and posterior superior teeth. Prosthetic replacement is performed and the case is finished with Class I canines, satisfactory overjet and overbite, and matched lines.

Descritores:

Retreatment; Anodontia; Orthodontics

P 112

Código do trabalho: Abor 265

Autores:

NASCIMENTO WC*, MARTINS RM, NETO ALP, BRANDÃO AMM.

REHABILITATING ORTHODONTIC TREATMENT WITH IMPLANTS IN YOUNG PATIENTS. A VIABLE PROPOSAL?**Resumo:**

The lack of upper lateral incisors creates an aesthetic problem and a question about opening or closing spaces in the orthodontic treatment and which better prosthetic rehabilitation to use. Dental implants can be used to replace congenitally absent lateral incisors in orthodontic patients. However, for young patients, therapeutics are controversial. The present study describes the integrated planning of the case of a young patient with agenesis of the right upper lateral incisor and who had diastemas in the same arch where the orthodontic treatment was performed with space opening in the region of agenesis and successfully installed the dental implant. An evaluation by radiography and tomography were performed to complement the diagnosis and planning. It is concluded that implants in young patients may be a viable alternative being proposed as “temporary implant” in the situation of dental agenesis, and the monitoring of the stages of growth and craniofacial development of the patient should be of great importance for the success of the treatment.

Descritores:

Dental Implants; Anodontia; Orthodontics

P 113

Código do trabalho: Abpor 268

Autores:

OLIVEIRA JS*, MIRANDA MF, SILVA CMATM, PINHEIRO JUNIOR JM

ORTHOPEDIC TREATMENT OF PADR III IN PATIENT WITH DOWN SYNDROME: CASE REPORT**Resumo:**

This study aims to present the protocol of orthopedic treatment of Class III malocclusion in Pattern III of Facial Growth in Down Syndrome patient. Patient AMI, brachyfacial, female, 09 years and 01 month old, at the beginning of the mixed dentition, underwent an interceptive treatment protocol with Rapid Maxillary Expansion (RME) and Maxillary Traction (MT), using an expander of McNamara modified with palatal support. The activation protocol was 2/4 turn in the morning and 2/4 turn in the evening for 5 days. After this period the patient was reevaluated and it was verified that the necessary overcorrection of 2 to 3 millimeters was reached. At the moment the expander was installed, the face mask was also adapted and the maxillary traction was started to take advantage of the skeletal effect of the expander. The force used in the TM was 400 grams on each side, totaling 800 grams, with the use orientation of 14 hours a day removing the mask only for sanitation and feeding, using even for sleeping. The time of use of the force system was 8 months to achieve necessary transverse and anteroposterior overcorrection. After the treatment period, both the occlusion and the face of the patient presented significant changes, but the main results occurred as a result of the dentoalveolar and mandible clockwise changes that improved the vertical and horizontal trespasses, as well as the facial aesthetics, increased AFAI and increased profile convexity.

Descritores:

Down Syndrome; Palatal Expansion Technique; Orthodontics

P 114

Código do trabalho: Abor 269

Autores:

LEOPOLDINO CA*, REIS SAB, HADDAD ACSS, FORNAZARI RF, MIRANDA SL

SURGERY-FIRST, CORTICOTOMY AND SKELETAL ANCHORAGE IN THE TREATMENT OF SKELETAL CLASS III WITH FACIAL ASYMMETRY

Resumo:

The article aims to describe a multidisciplinary approach to skeletal Class III malocclusion including orthodontics, corticotomy, orthognathic surgery and skeletal anchorage. Case report: A young adult with skeletal Class III underwent orthognathic surgery after 5 months of pre-surgical orthodontics. At this stage, the lower incisors were decompensated, but the upper posterior teeth on the left side were expanded and presented excessive buccal tipping, creating a “Brodie” crossbite after surgery. Thus, during orthognathic surgery miniscrews were installed for anchoring the contraction and palatal tipping of the premolars and molars on the left side. Corticotomy was also performed in the left posterior buccal region to accelerate tooth movement. With this approach, the occlusion was corrected six weeks after orthognathic surgery. Conclusion: This multidisciplinary treatment was effective in treating skeletal Class III. The main advantage of combining these techniques was the reduced treatment time

Descritores:

Orthodontics, corrective; Orthognathic Surgery; Prognathism

P 115

Código do trabalho: Abor 273

Autores:

ABRÃO J*, DOMINGOS RG, ABRÃO AF, PAIVA JB

ANALYSIS OF THE STRESS DISTRIBUTION IN THE ROOTS OF THE ANCHORING TEETH DURING THE MANDIBULAR SECOND MOLARS UPRIGHTING**Resumo:**

This study aims to evaluate the distribution of tensions along the premolars roots when these teeth are the anchorage during the mandibular second molars uprighting. Three groups of photoelastic models were designed to evaluate different lower second molars uprighting techniques. Group 1: mini-screw positioned in the retromolar region (control). Group 2: TMA cantilever spring inserted in the molar and supported by a segmented arch on the premolars. Group 3: open coil spring inserted between the second premolar and the second molar supported by a 0.018-inch stainless archsteel wire. The forces applied in the systems were of 6 different magnitudes: 50g, 100g, 150g, 200g, 250g and 300g. In the images collected, the same operator evaluated the roots of the premolars at 5 different points for each tooth, totaling 10 points evaluated. The data were compared and analyzed. Group 1 showed lower strain values of tensions in all evaluated points when compared to groups 2 and 3, except for the apical zone of the mesial root of tooth 45, which presented no statistical significance when compared to group 3. Group 3 presented a greater statistically significant strain mean than group 2 only at the cervical zone of the distal root of tooth 44. Conclusion: Considering the inherent characteristics to the photoelastic methodology employed in this study, the technique of lower second molar uprighting using a cantilever spring showed a greater stress mean in the premolar region. The technique that uses the mini-screw installed in the retromolar region presented a lower tensions on the premolars roots.

Descritores:

Orthodontic anchorage procedures; Tooth movement techniques; Mouth rehabilitation

Fonte: CAPES

P 116

Código do trabalho: Abor 274

Autores:

RODRIGUES MF*, AMARAL FLB, TURSSI CP.

EVALUATION OF THE DEGREE OF STAINING IN ORTHODONTICAL METAL WIRES WITH AESTHETIC COVERAGE**Resumo:**

This study evaluated the color behavior (degree of staining) of metallic orthodontic wires with aesthetic coverage. Samples of 04 brands of yarns (OrthoOrganizers, Tecnident, TP Orthodontics and Trian) were made and divided into 04 groups according to the storage solution (n = 3): Coca cola, mate tea, açai and saliva. Storage was performed at room temperature for 30 days (for 24 hours). The color change was measured by the Vita Easy Shade Compact reflectance spectrophotometer at the initial time (Ti = 0) and at the final time (Tf = 30 days) after storage. The color changes were recorded according to the CIE L * a * b * parameters, which enabled calculation of ΔE . The data were submitted to ANOVA at two criteria and Tukey's test, adopting a significance level of 5%. The color changes were dependent on the solution and brand of aesthetic orthodontic wires covered. The Trianeiro brand, immersed in Coca-Cola, as well as the Tecnident brand, immersed in Açai solution, showed the smallest changes in color (p).

Descritores:

In Vitro Techniques; Orthodontic Wires; Coloring Agents

Fonte: Do próprio pesquisador. Houve dispensa do comitê de ética Número do Protocolo: 2017/0827

P 117

Código do trabalho: Abor 278

Autores:

LEOPOLDINO CA*, HADDAD ACSS, FORNAZARI RF, MIRANDA SL, REIS SAB

SURGERY-FIRST, CORTICOTOMY AND SKELETAL ANCHORAGE IN THE TREATMENT OF SKELETAL CLASS III WITH FACIAL ASYMMETRY**Resumo:**

Objective: To describe a multidisciplinary approach to skeletal Class III malocclusion including orthodontics, corticotomy, orthognathic surgery and skeletal anchorage. Case report: A young adult with skeletal Class III underwent orthognathic surgery after 5 months of pre-surgical orthodontics. At this stage, the lower incisors were decompensated, but the upper posterior teeth on the left side were expanded and presented excessive buccal tipping, creating a “Brodie” crossbite after surgery. Thus, during orthognathic surgery miniscrews were installed for anchoring the contraction and palatal tipping of the premolars and molars on the left side. Corticotomy was also performed in the left posterior buccal region to accelerate tooth movement. With this approach, the occlusion was corrected six weeks after orthognathic surgery. Conclusion: This multidisciplinary treatment was effective in treating skeletal Class III. The main advantage of combining these techniques was the reduced treatment time.

Descritores:

Orthodontics, corrective; Orthognathic Surgery; Prognathism

P 118

Código do trabalho: Abor 280

Autores:

JESUS AS*, NASCIMENTO WC, DA SILVA ED, BRANDÃO AMM

IDIOPATHIC ROOT RESORPTION, AND NOW, HOW TO TREAT IT? CASE REPORT**Resumo:**

Planning treatment for patients with root resorption in the permanent dentition is a challenge for contemporary dentistry. This pathology is described as an occurrence in which the dental roots undergo a loss of their structures (bone, cementum and dentin) so that structural defects in the tooth and its surrounding tissues can be identified by radiographs. Such a dental condition reduces the therapeutic possibilities in orthodontics, making planning complex by limiting the application of orthodontic forces. The aim of this study is to report a clinical case of generalized root resorption of idiopathic cause in which the male patient, 21 years old, with open bite, atypical swallowing, mouth breathing syndrome with sleep apnea, sought the professional for orthodontic treatment. Documentations were collected for planning and handling the case. Finally, the surgical management of the case was indicated. The orthodontic planning and management of patients with root resorption are limited by the severity of such condition. Cases in this situation have a poor prognosis

Descritores:

Root Resorption; Orthodontics; Prognosis

P 119

Código do trabalho: Abor 266

Autores:

LEOPOLDINO CA*, MARINHO ET; REIS SAB, TOYAMA RV

COMPENSATORY ORTHODONTIC TREATMENT IN A CLASS III MALOCCLUSION PATIENT; A CASE REPORT**Resumo:**

The concept of facial pattern brought a new vision on orthodontic diagnosis, based primarily on morphology face(2) , and no longer determined by rigid cephalometric values that once guided the planning of the professional, on the need to correct a particular bad occlusion⁴ . Within this concept, we know that the skeletal error accompanying Pattern III patients, characterized by a diminished maxilomandibular sagittal, is the primary cause of malocclusions that secondarily settle on these individuals; and have, in most cases, class III molar ratio of Angle(2),(4),(6) . For those patients who have completed their growth, they are judged aesthetically pleasant, discarding orthognathic surgery, and have not exhausted their dental compensation capacity; compensatory orthodontic treatment is indicated. Thus, this article aims to describe a clinic case in which they were put to use mechanical alternatives to offset the bad class III occlusion in an adult patient, by Straight Wire technique and dental braces individualization(1), (3), (4), (5), (7).

Descritores:

Malocclusion, Angle Class III; Orthodontics, Corrective; Brackets

P 120

Código do trabalho: Abor 018

Autores:

FAHD CG*, FERREIRA MC, VERCELINO CRMP

LONGITUDINAL EVALUATION OF ORAL HEALTH-RELATED QUALITY OF LIFE DURING FIXED ORTHODONTIC THERAPY**Resumo:**

The aim of the study was to determine changes in oral health-related quality of life (HRQoL) during orthodontic treatment. A longitudinal study was carried out. The sample consisted of 48 adolescents, aged 11 to 17 years old, attending a private office and in different institutions that offer a specialization course in orthodontics. The study was conducted in the period from 2016 to 2017. To participate in the research, adolescents should never have used orthodontic appliances and those with cognitive and mental difficulties would be excluded for completing the QVRSB questionnaire. The Child Perceptions Questionnaire (CPQ11-14) short form was used to measure HRQoL. This questionnaire was completed by the adolescents, before orthodontic treatment (T0), one week after (T1) and one month after (T2) the appliance was bonded. The majority of the adolescents had 14 (22.9%) and 17 (22.9%) years, with the female representing 52.1% of the sample and the male, 47.9%. A statistically significant difference was observed for the emotional well-being domain when comparing before and after one week ($p = 0.003$) and before and after one month ($p = 0.003$) of the collage of the device, and the impact score was higher before Of collage (3.04) than after 1 week (2.08) and 1 month (1.58). Based on the results, it was concluded that the installation of the device alone already allows adolescents to identify with their peers, which leads to fewer impacts in aspects involving the emotional state.

Descritores:

Quality of life; Oral health, Orthodontic

Fonte: FAPEMA CAAE: 60291016.4.0000.5084

P 121

Código do trabalho: Abor 036

Autores:

COSTA EO*, BLAGITZ MN, NORMANDO ADC

IMPACT OF CATASTROPHIZATION ON PAIN DURING ORTHODONTIC TREATMENT**Resumo:**

It was investigated the influence of catastrophization and others factors related to pain during orthodontic treatment. 27 patients under treatment with 0.022 "x 0.028" straight-wire brackets in alignment and leveling phase with nickel-titanium wires were evaluated. The Visual Analog Scale measured the pain at six moments after a clinical appointment. Multiple linear regression and stepwise tests assessed the influence of sex, age, catastrophization, time of treatment, hour of patient care (morning or afternoon), and orthodontic wire on pain. The highest pain intensity was reported 24 hours after activation. These data were used to analyze factors associated with pain. In univariate statistics, age, ($r=0.062$, $p=0.7586$), sex ($p=0.28$), catastrophization ($r=-0.268$, $p=0.1765$), and orthodontic wire ($r=0.0245$, $p=0.2181$) were not associated with pain. Duration of treatment ($r=0.6045$, $p=0.0008$) and the time when the orthodontic appliance was activated ($p=0.0106$) were included in the multivariate regression model, as well as catastrophization which was of greatest interest in this study. The Regression tests ($R^2=0.3584$) showed that about 32% of the pain could be explained by the duration of treatment ($R^2=0.32$, $p=0.0475$). Catastrophization ($R^2=0.0006$, $p=0.8881$) and the time of activation ($R^2=0.037$, $p=0.2710$) were not significantly associated with pain. Therefore, only the duration of orthodontic treatment is associated to pain after the activation of fixed appliance. Other variables should be evaluated to predict which patient is more sensible to pain.

Descritores:

Pain; catastrophization.

P 122

Código do trabalho: Abor 125

Aurores:

BOMFIM BB*, VIEIRA MUL, VAZ RD, GONCALVES SLM

VERTICALIZATION OF SECOND LOWER MOLAR IMPACTED THROUGH MINIPLATES OF ORTHODONTIC ANCHORAGE**Resumo:**

The skeletal anchors comprise one of the great technological advances in orthodontics. With them, it was allowed, by obtaining a fixed point in the skeleton, that orthodontic treatments of difficult predictability, with long treating time and even dental movements like verticalization of horizontal teeth could be treated with a shorter time and better prediction of results. The panel reports the clinical case of a patient presenting with an anterior open bite with slight upper and lower crowding. In the panoramic radiograph, a third molar impaction is observed, with a consequent impaction of 2° molar on the same side, practically in the horizontal position. After the 3rd molar extraction and the assembly of the upper and lower fixed fixtures, the straight wire technique 022 was used for dental alignment and leveling. With the rectangular arch, the surgery was performed to place a mini-plate of anchorage in the retromolar region for traction of the 2nd molar lower left. After the miniplate was installed, a button was placed at the 2nd molar exposure location and positioned alastik to the miniplate. The 2nd molar was verticalized in three months and after that, the tube was installed in this tooth so that it is included in the arch to finish the alignment and leveling. The patient is in the finishing phase and finished with intercuspation elastics for closing the open bite. Conclusion: We can observe that the use of anchor plates allows the realization of movements considered impossible for a few years, allowing treatments faster and with better predictability of results for the patient.

Descritores:

Oral Surgery, Orthodontics, Miniplacas

P 123

Código do trabalho: Abor 227

Autores:

CHAVES, LB*; CARDOSO PC, ALMEIDA, RCC, ALMEIDA MA.

MULTIDISCIPLINARY TREATMENT OF CLASS III MALOCCLUSION WITH A PREVIOUS HISTORY HISTORY OF GIANT CELL GRANULOMA**Resumo:**

Central giant cell granuloma (GCCG) is considered a non-benign intraosseous lesion. The treatment of choice for this type of lesion is curettage or block resection. Thus, the following clinical case aims to demonstrate the multidisciplinary treatment and follow-up for correction of Class III skeletal malocclusion and dental class II of a male patient initially with 8 years and 2 months and a previous history of surgically removed giant cell granuloma by block resection, showing absence of elements 11, 12 and 21 and bone deficiency in the premaxilla region. The patient presented overjet of 0 mm and open bite of 1.5mm. Orthodontic treatment started by using the Kloehn cervical headgear for distalization of the molars and the transpalatal arch with fake teeth to avoid loss of space, besides the conventional fixed orthodontic appliance. Bone graft was done in the premaxilla region, which resulted in limitation of the upper jaw's development, generating anteroposterior and transverse problems. The lower teeth 35 and 45 were extracted and the anterior teeth were retracted using skeletal anchorage, a superimposed archwire and intermaxillary elastics. The clinical case was finished with prosthetic rehabilitation in the anterior region of the maxilla. It is concluded that the bone graft can hinder maxillary growth, generating a skeletal disharmony and that the early and multidisciplinary approach is essential for the success of this type of treatment.

Descritores:

Granuloma Giant Cell; Orthodontics; Rehabilitation

P 124

Código do trabalho: Abor 231

Autores:

BARBOSA TL*, MAUES CPR, ALMEIDA RCC, ALMEIDA MA

FACIAL DEFORMITY ASSOCIATED WITH OBSTRUCTIVE SLEEP APNEA SYNDROME AND ANKYLOSES OF A SUPERIOR INCISOR – CASE REPORT**Resumo:**

Skeletal class II may present severe consequences such as obstructive sleep apnea syndrome (OSA), as well as poor facial aesthetics and inadequate occlusion. Thus, the aim of this case report is to describe the ortho-surgical treatment of skeletal Class II associated with severe OSA. A 16-year-old male patient looked for treatment complaining about the projection of his upper teeth. He presented a convex profile, increased lower facial height, facial asymmetry to the right, extremely acute nasolabial angle and absence of passive lip seal. Clinically, he had a molar relationship of Class II division 1 right subdivision, projected upper and lower incisors (1-NA = 43°;10mm, 1-NB = 44°;18mm, IMPA = 109°), overjet of +17mm and ankyloses of tooth 11. The cephalometric analyses presented a skeletal Class II (ANB = 14°; Wits = 9mm) caused mainly by severe mandibular retrusion (SNB = 69°) and vertical growth tendency (FMA= 30° ; SnGoGn= 45°). The respiratory polysomnography examination showed severe OSA. The orthodontic treatment was planned with extraction of teeth 14, 24, 34 and 44 and an orthognathic surgery with maxillary segmentation, due to the ankyloses of tooth 11 that prevented the upper anterior teeth to be retracted. At the end of treatment, facial harmony, adequate occlusion, and significant improvement in airway volume were obtained, in addition to patient satisfaction. It can be concluded that, despite the limitations, the ortho-surgical treatment was crucial to improve the aesthetics, function and quality of life of the patient

Descritores:

Micrognathism; Orthognathic Surgery; Apnea

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Código do trabalho: Abor 239

Autores:

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DECREASE X-RAY NUMBER TO DIAGNOSIS IN MIXED DENTITION ANALYSIS**Resumo:**

Being the analysis of mixed dentition a diagnostic resource applied to children, and taking into account the great concern with the use of ionizing radiation, the present study aims to review the methods of Lima and Huckaba, which use radiographic techniques, due to higher precision compared to the measurements performed using tables in the mixed dentition analysis. The focus of this study was to test a variation in the method used for obtaining the required space calculation. This way, the reliability of performing measurements in only one patient hemi arch and extrapolate this value to the opposite side was tested by checking the degree of impact of this measure in the diagnosis. The aim of this variation is the possibility to reduce the number of necessary radiographs in the use of such important diagnostic means, which obtained as result, the absence of statistical difference between the two studied techniques and their derived, both in the case of Huckaba ($p=0,759$), as in the case of Lima ($p=0.844$). Therefore, this research shows consistent to the clinical needs of the dental surgeon.

Descritores:

Mixed dentition analysis; X-ray; Orthodontics

P 126

Código do trabalho: Abor 241

Autores:

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CAMOUFLAGE OR ORTHOGNATHIC SURGERY IN THE TREATMENT OF ANTERIOR OPEN BITE IN BORDERLINE CASES? CASE REPORT**Resumo:**

The anterior open bite treatment is always a challenge to the orthodontist, due to the high tendency of relapse. The aim of this study is to present a 9-years follow-up of a compensatory orthodontic treatment of an anterior open bite found in a patient with skeletal discrepancy. A 15-year-old male patient sought treatment with the complaint that his teeth were too projected but he did not have any complaint about his face. In clinical exam, he presented a convex profile, a long lower third of the face, a Class I molar relationship and a transversal relationship within molars. The cephalometric analysis presented a skeletal Class I ($ANB = + 1,5^\circ$, $Wits = -1$ mm) and an upper and lower incisor projection ($U1-NA = 32.5^\circ$, 9 mm $U1-NB = 35^\circ$ and 8.5 mm). The treatment comprehended a disjunction with Hyrax, with the protocol of $\frac{1}{4}$ turn per day, extraction of 1st premolars and modified KIM mechanics that involved an upper arch with a pronounced curve of Spee and a lower arch with a reverse curve of Spee and a mechanic of intermaxillary elastics in the anterior region. At end of the treatment, the patient was satisfied and presented an aesthetic and functional occlusion. It was observed stability after 9 years of follow-up. In conclusion, the compensatory treatment of this case in which the patient presented significant skeletal discrepancy was an effective and stable alternative for the correction of anterior open bite.

Descritores:

Open Bite; Orthognathic Surgery

P 127

Código do trabalho: Abor 271

Autores:

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RELATIONSHIP BETWEEN SINCONDROSE SPHENO OCCIPITAL WITH THE DIFFERENT TYPES OF MALOCCLUSIONS**Resumo:**

The synchondroses are cartilaginous joints where the bones that are inserted allow small movements, where they also have the name Amphiarthroses. The sinciprosis occipitalis is directly connected to the structures of the neurocranium, the sphenoid bone and the occipital bone. Many synchondroses are temporary joints, and are conforming to bone tissue as the individual develops. According to the posture and disposition of the teeth, the sphenoidal bone accommodates the entire anterior structure of the face, which is directly related to the occlusion. Sato (1987) carried out a study where he observed that craniofacial architecture is a complex inter-relationship between structures connected by sutures and synchondroses, which allow light bone movements during the growth and development of an individual. The individual behavior of the skull base suggests influencing the position and relationships of craniofacial structures. The variations of the midline cranial base seem to be mainly spatially related to the maxilla and vomer. Since the mandible seems to be independent of the base of the skull. It was concluded that the morphological changes occurring in the occipital sphenoid synchondrosis are directly related to the distocclusions, neutroclusions and mesio-occlusions.

Descritores:

Sincondroses; Spheno Occipital; Malocclusion

P 128

Código do trabalho: Abor 162

Autores:

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MEAW GEAW TECHNIQUE: CLASS II ORTHODONTIC CORRECTION ASSOCIATED WITH OPEN BITE

Resumo:

Professor Sadao Sato's Meaw Geaw technique aims to relate the posterior occlusal plane, mandibular adaptation and posterior discrepancy, making it possible for patients with surgical indication of malocclusion to be a non-surgical option. This paper reports a clinical case with diagnosis of mandibular class II and anterior open bite. A female patient, 18 years old, leucoderma and retroverted, presented the Orthodontic Specialization Clinic of the Universidade Paulista, complaining about the aesthetics of her smile and difficulty in phonation. After diagnosis, his treatment consisted in the third molars extraction, brackets slot 18 Ricketts prescription, performing intrusion and verticalization of the molars using Tma wire 0.16x 0.22 bypassing with as multi loops idealized by Dr. Kim Meaw and Elastics Intermaxillary. We conclude, then, a Technical Meaw, is a affctive solution for the correction of facial harmony, in cases of Class II associated with the anterior open bite, enabling non-surgical treatment.

Descritores:

Malocclusion; Anterior open bite; Facial harmony

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Código do trabalho: Abor 000

Autores:

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CAPACITY EVALUATION AUDIOLOGIC AFTER RAPID MAXILLARY EXPANSION**Resumo:**

Maxillary atresic is a Facial skull alteration present in an oral breathing patient. The alteration in the anatomy of the palate can allow in the relation between the peristorial muscles and the bones where the muscles are inserted, they are responsible for opening and closing the pharyngeal ostium of the eustachian tube and are muscles that make up the soft palate and that can change capacity of hearing. **OBJECTIVE:** To evaluate an audiological capacity before and after a rapid expansion of the maxilla with Hass apparatus, in patients with mouth breathing and atresic of the maxilla. **MATERIALS AND METHODS** Twelve patients with normal general health, maxillary atresia and oral breathing were examined, mean age of 8 years, after consent and authorization of parents participants in the research. Subjected to the most rapid maxillary expansion with the apparatus expander Hass, with activation of $\frac{1}{4}$ ate 2 times day during the 15 days. The audiological examination was performed with speech therapy before (T1) and after (T2) the expander treatment, in the audiometry booth, with the AC33 audiogram measuring device, with earphone. The audiometric frequency was measured at 500Hz and 250Hz. After the examination, the emission of time each time studied and the hearing levels of each ear. Data were statistically treated using the Bioestat program. **RESULTS:** There was an improvement in the hearing capacity of the patients studied at the frequency of 500Hz and 250Hz. No statistically significant differences were found. **CONCLUSIONS:** We found positive effets and there was no interference on hearing of these patients.

Descritores:

Audiometry, maxillary expansion, mouth breather

P 130

Código do trabalho: Abor 162

Autores:

OLIVEIRA DD, OLIVEIRA PM*, PANTUZO MCG, CASTRO P

ORTHO-SURGICAL APPROACH FOR TREATMENT OF MANDIBULAR SKELETAL CLASS II ASSOCIATED WITH VERTICAL MAXILLARY EXCESS**Resumo:**

Class II bone dysplasias have a high prevalence in the world, and the main cause is deficiency in the anteroposterior growth of the mandible. The approach to such a condition becomes more complex when the patient has already reached skeletal maturation and therefore has no growth. An alternative to this kind of situation is ortho-surgical planning. The purpose of this article is to illustrate the case of a female patient, 28 years old, whose main complaints were “chin too far behind and show a lot of gums when smiling” and “I would like a treatment with a maximum of one year” once she had already undergone a compensatory orthodontic treatment for 5 years as a teenager. Thus, the proposed new planning was based on her main complaints, therefore, an ortho-surgical treatment involving a preoperative orthodontic stage with dental decompensations, orthognathic surgery based on maxilla impaction, mandibular counterclockwise self-rotation, mentoplasty, rhinoplasty and, finally, a post-surgical orthodontic stage. Thus, a good antero-posterior positioning of the mandible with respect to the maxilla was achieved, adequate functional guidelines were established and the patient’s aesthetic complaints were met.

Descritores:

Orthognathic surgery; Retreatment

Painel

Autores:

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INVISIBLE ALIGNERS

Resumo:

For years, the effectiveness of orthodontic treatments with conventional the metallic brackets has been consolidated, but the search for increasingly aesthetic procedures has brought the need for the improvement of conventional orthodontic treatment. Because of this the orthodontics evolved from the bandage of all the teeth, passing through the metallic brackets with adhesive system, lingual brackets, polycarbonate and ceramic brackets, until the development of the invisible removable aligners. Thus, the objective of this study is to perform a literature review to identify and describe the main techniques used currently in the invisible aligners system. For this, a bibliographic survey was carried out by consulting the main databases. At the end of the study, it was possible to conclude that the main invisible aligners systems are: laboratory setup; Bubble system; CAD-CAM systems and elastic and button aligners. It presents as main advantages: It is aesthetically more favorable, it be removable, it causes less injuries to the soft tissues, it is more comfortable and there is the possibility of performing whitening and aesthetic procedures during the orthodontic treatment. Thus, the invisible aligners system is not interested in changing the way of treating orthodontically the patients, but is interested in giving an option more treatment, for that person who resists to conventional orthodontic therapy.

Descritores

Orthodontics, Corrective; Esthetics Dental; Transparent Aligners