SP01  WNT10A MUTATION RESULTS IN SEVERE TOOTH AGENESIS IN A FAMILY OF THREE SISTERS  
Mushriq Abid, Paul Sharpe, Martyn Cobourne, King’s College London, U.K.

SP02  EVALUATION OF ORTHODONTIC MINI-IMPLANT STABILITY USING RESONANCE FREQUENCY  
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Ahmed Abo Habib, Amr Labib, Department of Orthodontics, Cairo University, Egypt

SP03  PREVALENCE OF DENTAL ANOMALIES IN PATIENTS WITH IMPACTED MAXILLARY AND  
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Joanna Abramczyk1, Paweł Plakwicz2, Nikolaos Pandis3, Małgorzata Zadurska1, Ewa Monika  
Czochrowska1, Departments of 1Orthodontics and 2Periodontology, Medical University of Warsaw,  
Poland and 3Department of Orthodontics and Dentofacial Orthopedics, School of Dental Medicine,  
University of Bern, Switzerland

SP04  PATIENT REPORTED EXPERIENCE WITH ORTHODONTIC-ORTHOGNATHIC TREATMENT IN  
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Kulraj Achal, Jay Kindelan, Department of Orthodontics, York Hospital, U.K.

SP05  REGIONAL PROSPECTIVE AUDIT OF ORTHODONTIC MOLAR BOND AND MOLAR BAND  
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Kulraj Achal1, Samuel Anthony2, Zararna Nelson-Moon3, Departments of 1Orthodontics and 2Oral  
and Maxillofacial Surgery, York Teaching Hospitals NHS Trust, U.K.

SP06  PREDICTION OF MAXILLARY INCISORS ROOT RESORPTION ASSOCIATED WITH PALATALLY  
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Asma Al Emam, Elham Abu Alhaija, Jordan University of Science and Technology, Irbid, Jordan

SP07  USE OF PERSONAL PROTECTIVE EQUIPMENT IN AN ORTHODONTIC DEPARTMENT: AN AUDIT  
Sama Al Junaid, Ahmed Alsraraf, Rachael O’Brien, Samantha Hodges, Department of Orthodontics,  
Eastman Dental Hospital, London, U.K.

SP08  MICROGNATHIA IN CILIOPATHIC MODELS  
Hadeel Adel Al-Lami, William Barrell, Basil Yannakoudakis, Martyn Cobourne, Karen Liu, Department  
of Craniofacial Development and Stem Cell Biology, King’s College London, U.K.

SP09  CORRELATION BETWEEN OCCLUSION AND BODY POSTURE IN YOUNG MEN  
Frederic Adjami1, Daniela Ohlendorf2, Benjamin Scharnweber3, Gabriele Schuster1, Stefan  
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und Kieferheilkunde (Carolinum) der Johann Wolfgang Goethe-Universität, Frankfurt am Main and  
Instituts für Arbeitsmedizin, Sozialmedizin und Umweltmedizin, Frankfurt am Main, Germany

SP10  EFFECTS OF THE FLASH-FREE BONDING TECHNIQUE ON PLAQUE RETENTION AND  
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Payam Afousi, Thyagaseely Premaraj, Sundaralingam Premaraj, Department of Orthodontics,  
University of Nebraska Medical Center, Lincoln, USA

SP11  EVALUATION OF CRANIOFACIAL SYMMETRY AND GROWTH/TREATMENT CHANGES IN  
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Akila Aiyar, Michel Dalstra, Tine Hjorth, Section of Orthodontics, Aarhus University, Denmark

SP12  EVALUATION OF MATERIAL RELATED-STRESS DISTRIBUTION OF ORTHODONTIC MINI-  
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Sevil Akkaya, Amir Mamusha, Department of Orthodontics, Gazi University, Ankara, Turkey

SP13  LINEAR AND TORQUE CHANGES OF TRANSVERSE DIMENSION IN A SAMPLE OF PATIENTS  
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SP15 EFFECT OF ORTHODONTIC FORCE ON SALIVARY LEVELS OF LACTATE DEHYDROGENASE ENZYME
Akram Alhuwaizi1, Suha Abdul Ameer2, Departments of Orthodontics, 1Baghdad Dental College, and 2Al-Rafidain Dental College, Baghdad, Iraq

SP16 ASSESSMENT OF THE DISCOLOURATION OF CLEAR ELASTOMERIC LIGATURES: AN IN VITRO COMPARATIVE STUDY
Akram Alhuwaizi1, Shams Mohammed2, Departments of Orthodontics, 1Baghdad Dental College and 2Basrah Dental College, Iraq

SP17 BIOMIMETIC GRADED INTERPENETRATING NETWORK CERAMIC-RESIN COMPOSITE ORTHODONTIC BRACKET MATERIALS
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SP18 CORTICOTOMY-INDUCED TOOTH MOVEMENT, HOW FAST ARE WE MOVING? A REVIEW ARTICLE
Aslam Alkadhimi1, Li-An Eow2, Therese Garvey3, 1Department of Orthodontics and Oral and Maxillofacial Surgery, Queen’s Medical Centre, Nottingham, U.K., 2Ascension Dental Clinic, Singapore and 3Department of Public and Child Dental Health, Dublin Dental University Hospital, Ireland

SP19 WHAT IS THE IDEAL MATERIAL AND SEQUENCE OF INITIAL ALIGNING ARCHWIRES FOR ORTHODONTIC ALIGNMENT?
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SP20 LINGUAL FRAENULUM TEST IN INFANTS AT A MATERNITY HOSPITAL
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SP21 LONG-TERM STABILITY OF TRANSVERSE CHANGES AND TOOTH ALIGNMENT IN THE LOWER DENTAL ARCH TREATED WITH SELF-LIGATING BRACKETS
Rita Bariani1, Carlos Henrique Guimarães Júnior2, Wilana Moura3, Kurt Faltin Junior4, Cristina Lucia Feijó Ortolani2, 1University Paulista, Sao Paulo, 2Centro Universitário Euro-Americano, Brasilia and 3Sao Leopoldo Mandic, Campinas, Brazil

SP22 COMPARISON OF THE EFFICACY OF TOOTH ALIGNMENT AMONG LINGUAL AND LABIAL BRACKETS: AN IN VITRO STUDY
Ahmad Alobeid1, Tarek El-Bialy2, Cornelius Dirk1, Andreas Jäger3, Christoph Bourauel1, 1Oral Medical Technology and Experimental Orthodontics Lab. and 2Department of Orthodontics University of Bonn, Germany and 3Department of Orthodontics, University of Alberta, Edmonton, Canada

SP23 EFFECT OF RAPID MAXILLARY EXPANSION AND PROTRACTION ON THE PHARYNGEAL AIRWAY IN INDIVIDUALS WITH NON-SYNDROMIC CLEFT LIP AND PALATE
Najla Alrejaye1, Jonathan Gao2, Snehlata Oberoi1, 1Orofacial Sciences/Orthodontics and 2General Dentistry, University of California, San Francisco, USA
SP24  A NOVEL APPROACH FOR THE ASSESSMENT OF FACIAL ASYMMETRY BEFORE AND AFTER PRIMARY LIP SURGERY OF UNILATERAL CLEFT LIP AND PALATE
Dhelal Al-Rudainy1, Xiangyang Ju2, Steve Stanton3, Felicity Mehendale1, Ashraf Ayoub1, 1Department of Orthodontics, Glasgow Dental School, 2Medical Devices Unit, Department of Clinical Physics and Bioengineering, National Health Service of Greater Glasgow and Clyde, Glasgow, 3Royal Hospital for Sick Children, Edinburgh, 4Department of Oral and Maxillofacial Surgery, Glasgow Dental School, School of Medicine, College of Medical, Veterinary and Life Sciences, University of Glasgow, U.K.

SP25  THE EFFECT OF A UNILATERAL POSTERIOR CROSSBITE ON MAXILLOFACIAL AND DENTAL STRUCTURES: A CONE BEAM COMPUTED TOMOGRAPHIC EVALUATION
Hatem Alshaer1, Susan Al-Khateeb2, 1Private Centre, Jeddah, Saudi Arabia and 2Jordan University of Science and Technology, Irbid, Jordan

SP26  EVALUATION OF DISTRIBUTION OF MANDIBULAR ASYMMETRY
Bartu Altuğ1, Orhan Özülder1, Erhan Özdiler1, Zaur Novruzov2, Emel Özgümüş Demir4, 1Department of Orthodontics, Ankara University Faculty of Dentistry, Turkey, 2Azerbaijan Medical University, Baku, Azerbaijan and 3Ankara University Faculty of Agriculture, Biometry and Genetics, Turkey

SP27  RELATIONSHIP BETWEEN CONDYLAR VOLUME AND FACIAL MORPHOLOGY
Jung-Sub An1, Min-Seok Chang1, Jeong-Ho Choi2, Min-Suk Heo1, Sug-Joon Ahn1, Departments of 1Orthodontics and 2Oral and Maxillofacial Radiology, Seoul National University, and 2Smile Future Orthodontic Clinic, Seoul, Korea, South

SP28  SLEEP, OCCLUSION, DENTAL ARCH AND PALATAL MORPHOLOGY IN CHILDREN WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER COMPARED TO CONTROLS
Helle Andersson, Liselotte Sonnesen, Section for Orthodontics, Department of Odontology, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

SP29  DENTAL ARCH FORM MODIFICATION AS A METHOD FOR PROVIDING SPACE FOR TOOTH MOVEMENT
Laura Andreeva, Medical University Sofia, Faculty of Dental Medicine, Bulgaria

SP30  COMPARATIVE ANALYSIS OF THE MECHANICAL PROPERTIES OF FIBRE AND STAINLESS STEEL MULTISTRAND WIRES USED FOR LINGUAL FIXED RETENTION
Olga Annousaki1, Theodore Eliades1, Spiros Zinelis2, George Eliades2, 1Clinic of Orthodontics and Paediatric Medicine, University of Zurich, Center of Dental Medicine, Switzerland and 2Department of Dental Biomaterials, School of Dentistry, University of Athens, Greece

SP31  A PROSPECTIVE AUDIT EVALUATING PATIENT SATISFACTION THROUGH THE ORTHODONTIC AND ORTHOGNATHIC PATHWAY
Ian Arad, Thushala Ubaya, Payal Sharma Birch, Orthodontic Department, Queens Hospital, Romford, U.K.

SP32  IN VITRO IMPACT OF INSERTION ANGLE ON PRIMARY STABILITY OF MINISCREWS
Mahdi Araghbidikashani1, Amin Golshah2, Nafiseh Nikkerdar3, Majid Rezaei3, 1Department of Orthodontics, Shahed University, Tehran and Departments of 2Orthodontics and 3Oral and Maxillofacial Radiology, Kermanshah University of Medical Sciences, Iran

SP33  ASSESSMENT OF THE NEED AND DEMAND FOR ORTHODONTIC TREATMENT IN 13- TO 14-YEAR-OLD STUDENTS IN KERMANSHAH, IRAN IN 2012
Farshad Rahimi1,2, Amin Golshah1,2, Elham Dadfar2, 1Department of Orthodontics, 2Kermanshah University of Medical Sciences, Iran

SP34  PERIODONTAL PROBLEMS WITH ORTHODONTIC FIXED RETAINERS IN THE LOWER ARCH
SP35  THE ASSOCIATION BETWEEN PALATAL RUGAE MORPHOLOGY AND TOOTH NUMBER
Jessica Armstrong¹, Manoharan Andiappan², Martyn Cobourne¹; ¹Guy’s Hospital, London and ²King’s College, London, U.K.

SP36  THE EFFECTS OF FIXED ORTHODONTIC RETAINERS ON PERIODONTAL HEALTH. A SYSTEMATIC REVIEW
Marie-Laure Arn¹, Konstantinos Dritsas², Dimitrios Kloukos¹, Departments of Orthodontics and Dentofacial Orthopedics, ¹University of Bern, Switzerland and ²251 Hellenic Air Force General Hospital, Athens, Greece

SP37  THE EFFECTIVENESS OF PIEZOCORTICOTOMY AND MINISCREW ANCHORAGE IN CASES OF THIRD AND SECOND MOLAR MESIALIZATION WHEN THE FIRST MOLAR IS MISSING
Olga Arsenina¹, Natalia Popova¹, Valerya Kozachenko¹, Anna Popova¹, Mikhail Fomin², ¹Orthodontic Department and ²Department of Surgery, Central Research Institute of Dentistry and Maxillofacial Surgery, Moscow, Russia

SP38  AGREEMENT BETWEEN CHILDREN AND PARENTS/CAREGIVERS IN RATING ORAL HEALTH RELATED QUALITY OF LIFE USING CHILD PERCEPTIONS QUESTIONNAIRE ISF:16
Caroline Arvidsson¹, Lars Bondemark², Kristina Arnrup¹, Lillemor Dimberg¹, ¹Postgraduate Dental Education Center, Örebro and ²Faculty of Odontology, Malmö, Sweden

SP39  FORCE MAGNITUDES BETWEEN TWO LEVELS OF HOOK HEIGHT FOR MAXILLARY POSTERIOR SEGMENT DISTALIZATION WITH MINISCREW ANCHORAGE
Thannapat Aungkatawiwat, Virush Patanaporn, Orthodontic Department, Chiang Mai University, Thailand

SP40  ADAPTATION OF THE CHILD PERCEPTIONS QUESTIONNAIRE 11-14 FOR THE TURKISH LANGUAGE: VALIDATION IN AN ORTHODONTIC PATIENT SAMPLE
Cihan Aydoğan, Department of Orthodontics, University of Yuzuncu Yil, Van, Turkey

SP41  LOWER FACIAL CHARACTERISTICS CONTRIBUTING TO PERCEPTION OF FACIAL ASYMMETRY IN DENTISTS AND LAYPERSONS
Jaehee Bae, Kyeong-Tea Song, Kyung-Hwa Kang, College of Dentistry, Wonkwang University, Iksan, Korea, South

SP42  THE IMPACT OF RECONDITIONED ORTHODONTIC BRACKETS ON BOND STRENGTH IN VIVO
Faisal Ismail Bahnasi¹, Aida Nur Ashikin Abd Rahman¹; ¹Mohamed Ibrahim Abu Hassan², ¹Centre for Paediatric Dentistry & Orthodontic Studies and ²Centre for Restorative Dentistry Studies, Universiti Teknologi Mara, Sungai Buloh, Malaysia

SP43  EFFECTIVENESS OF TEMPORARY ANCHORAGE DEVICES DURING ANTERIOR MAXILLARY TOOTH RETRACTION: A RANDOMIZED CLINICAL TRIAL
Stéphane Barthélemi², Fatoumata Soumaré², Alban Dessouter², Jean Baptiste Dagorne², Alain Decker²; ¹Biosanté Nanosciences Laboratory EA 4203, Dental University, Montpellier and ²Department of Orthodontics, Dental University Paris Descartes, Montrouge, France

SP44  THE EFFECT OF SOFT TISSUE THICKNESS ON THE SOFT TISSUE RESPONSE TO MANDIBULAR SETBACK SURGERY
Hasibe Baser Keklikci, Zeynep Hacioglu, Nisa Gul Amuk, Department of Orthodontics, Erciyes University, Faculty of Dentistry, Kayseri, Turkey

SP45  A PATIENT’S EXPERIENCE OF A FIXED FUNCTIONAL APPLIANCE AND CLINICAL MANAGEMENT
Luca Bassani, Giulia Ghilardi, Alessandra Lucchese, IRCCS San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan, Italy

SP46 PATIENTS’ ACCEPTANCE OF VIBRATIONAL FORCE VERSUS SURGICALLY-ASSISTED ORTHODONTIC TOOTH MOVEMENT
Luca Bassani, Giulia Ghilardi, Alessandra Lucchese, IRCCS San Raffaele Vita Salute University, Milan, Italy

SP47 THE EFFECT OF ENAMEL SANDBLASTING ON ENHANCING BOND STRENGTH OF ORTHODONTIC BRACKETS: A SYSTEMATIC REVIEW AND META-ANALYSIS
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SP48 COMPARISON OF NASAL AIRFLOW BETWEEN TOOTH- AND TOOTH-BONE-BORNE MAXILLARY EXPANSION APPLIANCES
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SP49 EXTRACTED TOOTH ROOTS USED FOR LATERAL RIDGE AUGMENTATION – A NEW BIOLOGICAL CONCEPT
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SP50 ACCURACY AND ELIGIBILITY OF CONE BEAM COMPUTED TOMOGRAPHY TO DIGITIZE DENTAL PLASTER CASTS
Kathrin Becker1, Ulf Schmücker2, Benedict Wilmes1, Dieter Drescher1, Departments of 1Orthodontics and 3Oral Surgery, University Hospital Dusseldorf and 2Steinbeis Hochschule, Berlin, Germany

SP51 FOUR DIMENSIONAL CONTROL OF ROOT MOVEMENT IN LINGUAL ORTHODONTICS BY PRE-TREATMENT CONE BEAM COMPUTED TOMOGRAPHY AND PROGRESSIVE INTRAORAL SCANS
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SP52 USING ARTIFICIAL INTELLIGENCE TO EVALUATE THE IMPACT OF ORTHOGNATHIC THERAPY ON APPARENT AGE AND FACIAL ATTRACTIVENESS
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SP53 DOES SYSTEMIC MEDICATION IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS AFFECT CONDYLAR GROWTH DIFFERENTLY THAN ARTICULAR CORTICOSTEROID INJECTION?
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SP54 THE ROLE OF SONIC HEDGEHOG IN EARLY DEVELOPMENT OF LINGUAL EPITHElia
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SP55 STRONTIUM ENHANCES PERIODONTAL LIGAMENT CELL GROWTH AND OSTEOGENIC BEHAVIOUR IN VITRO
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SP56 OUTCOME QUALITY OF HERBST-MULTIBRACKET TREATMENT – A COMPARISON OF 708 CONSECUTIVE CLASS II DIVISION 1 AND CLASS II DIVISION 2 PATIENTS
Niko Bock, Sophia Baier, Julia Rühl, Sabine Ruf, Department of Orthodontics, University of Giessen, Germany

SP57 HERBST-MULTIBRACKET TREATMENT – HOW STABLE ARE THE RESULTS 15-25 YEARS LATER?
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SP58 A NOVEL STANDARDIZED THREE-DIMENSIONAL ANALYSIS TO ASSESS CLEFT SIZE BASED ON DIGITAL MODELS OF UNILATERAL CLEFT LIP AND PALATE PATIENTS
Susanna Botticelli1,2, Thomas Kilt Pedersen1,3, Annelise Küseler1,2,3, Sven Erik Nørholt1,3, Paolo Maria Cattaneo1, 1Section of Orthodontics-Department of Dentistry and Oral Health,University of Aarhus, 2Cleft Lip and Palate Center-IKH-Aarhus and 3Department of Oral and Maxillofacial Surgery, Aarhus University Hospital, Denmark

SP59 MANDIBULAR INTERVAL WIDTH CHANGES DURING TREATMENT WITH AND WITHOUT EXTRACTIONS
Ole Bendik Bøen, Raman Bero, Keijo Aukusti Luukko, Maria Mavragani, University of Bergen, Norway

SP60 MAGNETIC CEPHALOMETRIC DIAGNOSTICS
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SP61 DIFFERENCE OF NON-INVASIVE NOXRAYCEPH IN VIVO AND IN VITRO
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SP62 IS INTERCEPTIVE ORTHODONTIC TREATMENT EFFECTIVE AND DOES IT REDUCE THE NEED FOR FURTHER COMPREHENSIVE ORTHODONTIC TREATMENT?
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SP63 FRONTAL SINUS MORPHOLOGY IN ANTERO-POSTERIOR CEPHALOMETRIC RADIOGRAPHS OF TURKISH ORTHODONTIC SUBJECTS: A FORENSIC GLANCE
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SP64 EVALUATION OF THE EFFECTS OF RAPID MAXILLARY EXPANSION ON PAIN AND CYTOKINE LEVELS
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SP65 EFFICACY AND STABILITY OF A FUNCTIONAL CLASS II APPLIANCE IN GROWING PATIENTS
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SP66 ATTRACTIVE PERCEPTION OF CLASS II PATIENTS TREATED WITH EXTRACTIONS VERSUS INTERMAXILLARY OR OTHER MANDIBULAR ADVANCEMENT DEVICES
Paul Capdeville-Cazenave, Javier De La Cruz Pérez, Iván Nieto Sánchez, Inés Díaz Renovales, Carmen Mediero Perez, Department of Dentistry, University Alfonso X El Sabio, Madrid, Spain
SP67  SHORT-TERM EVALUATION OF SURGICALLY ASSISTED RAPID MAXILLARY EXPANSION WITH A BONE-BORNE APPLIANCE; MAXILLARY BENDING OR BODILY EXPANSION? – A PILOT STUDY
Pedro Carreiro\(^1\), Michel Dalstra\(^1\), Sven Erik Nørholt\(^1\), Thomas Jensen\(^3\), Thomas Klit Pedersen\(^2\), \(^1\)Department of Orthodontics, Aarhus University, \(^2\)Department of Oral and Maxillofacial Surgery, Aarhus University and Aarhus University Hospital, \(^3\)Department of Oral and Maxillofacial Surgery, Aalborg Hospital, Denmark

SP68  EFFECTS OF DIFFERENT CONDITIONING TECHNIQUES PRIOR TO APPLICATION OF A SELF-ETCHING BOND SYSTEM ON AESTHETIC BRACKET BOND STRENGTH
Lara Cendán Serrano, Ascensión Vicente Hernández Vicente, Luis Alberto Bravo González Bravo, Universidad de Murcia, Spain

SP69  THE RELATIONSHIP BETWEEN THE IDIOPATHIC SCOLIOSIS AND DENTO–FACIAL ASYMMETRY
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SP70  TECHNIQUES OF IMAGE PROCESSING ON DIGITAL X-RAYS FOR THE ANATOMIC STRUCTURES AUTOMATED DETECTION
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SP71  THE ALVEOLAR ENVELOPE IN GROWING UNILATERAL COMPLETE CLEFT LIP AND PALATE PATIENTS
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SP72  DIGITAL DYNAMIC THREE-DIMENSIONAL MONITORING OF LOWER INCISOR INTRUSION IN LINGUAL ORTHODONTICS: A PILOT STUDY
Elia Kodjo Chardey, Rosamaria Fastuca, Matteo Beretta, Piero Antonio Zecca, Aldo Macchi, Department of Surgical and Morphological Sciences, University of Insubria, Varese, Italy

SP73  COMPARISON OF FRICTIONAL RESISTANCE BETWEEN LOW-FRICTION AND CONVENTIONAL ORTHODONTIC LIGATION METHODS
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SP74  THREE-DIMENSIONAL SHAPE VARIATION OF THE MAXILLA AND MANDIBLE USING GEOMETRIC MORPHOMETRICS
Athina Chatzigianni\(^1\), Chrystalla Kyprianou\(^2\), Anastasia Pouliaki\(^3\), \(^1\)Department of Orthodontics, School of Dentistry, Aristotle University of Thessaloniki and \(^2\)Private Practice, Thessaloniki, Greece

SP75  COMPARISON OF OCCLUSION IN PATIENTS WITH COMPLETE UNILATERAL CLEFT LIP AND PALATE BETWEEN ONE-STAGE AND TWO-STAGE SURGICAL REPAIRS USING A THREE-DIMENSIONAL SCANNER
Woraprap Cherdjoho, Marasri Chaiworawitkul, Department of Orthodontics, Chiang Mai University, Thailand

SP76  ACCURACY OF THREE-DIMENSIONAL FACIAL SIMULATION FOLLOWING ORTHOGNATHIC SURGERY IN SKELETAL III CHINESE PATIENTS
Ming Tak Chew\(^1\), Suat Li Sally Tan\(^1\), Hui Yin Ada Low\(^1\), Lujie Chen\(^2\), \(^1\)National Dental Centre Singapore and \(^2\)Singapore University of Technology and Design, Singapore
AGE ESTIMATION USING THE MAXILLARY CANINE PULP/TOOTH RATIO BY CAMERIER’S METHOD: A CONE BEAM COMPUTED TOMOGRAPHIC BUCCOLINGUAL AND HORIZONTAL SECTION IMAGE ANALYSIS

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INNOVATIVE EDUCATION METHODS IN ORTHODONTICS

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A COST MINIMIZATION ANALYSIS OF LARGE OVERJET REDUCTION WITH TWO REMOVABLE FUNCTIONAL APPLIANCES BASED ON A RANDOMIZED CONTROLLED TRAIL

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THE INCIDENCE, AETIOLOGY AND TREATMENT OF IMPACTED AND TRANSMIGRATED MANDIBULAR CANINES: A SYSTEMATIC REVIEW

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ANALYSIS OF PERIODONTAL LIGAMENT CHANGES BY ORTHODONTIC FORCE USING MICRO-RAMAN SPECTROSCOPY

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THREE-DIMENSIONAL CEPHALOMETRIC NORMS OF ANKARA REGION ADULTS WITH BALANCED FACIAL PROFILES AND NORMAL OCCLUSION

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EFFICIENCY AND INFLUENCING FACTORS OF HEAD ORTHESIS THERAPY IN INFANTS WITH POSITIONAL PLAGIOCEPHALY

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CRANIAL BASE ANGLE IN PATIENTS WITH ACHONDROPLASIA – CEPHALOMETRIC OBSERVATIONS

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EVALUATION OF TRANSPORT MEDIUM FOR EXTRACTED PREMOLARS PRIOR TO CRYOPRESERVATION: AN IN VITRO STUDY

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SP87 THE INFLUENCE OF CRYOPRESERVATION ON THE SURFACE AND MECHANICAL CHARACTERISTICS OF DENTAL HARD TISSUES: AN IN VITRO STUDY
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SP88 THE QUADHELIX APPLIANCE: AN ACTIVATION PROTOCOL
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SP89 EFFECT OF DIFFERENT MASTICATORY FUNCTIONAL DEMANDS ON THE THREE-DIMENSIONAL MANDIBULAR CONDYLE MORPHOLOGY OF GROWING RATS USING POSTERIOR BITE-BLOCKS
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SP90 A LONGITUDINAL STUDY ON TIMING AND VELOCITY OF RAT MOLAR ERUPTION
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SP91 ARE WE COMPLIANT WITH CONE BEAM COMPUTED TOMOGRAPH GUIDELINES?
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SP92 ARE WE ASSESSING AND REPORTING RADIOGRAPHIC QUALITY AND FINDINGS?
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SP93 VALIDITY AND RELIABILITY OF THE SWEDISH VERSION OF THE CHILD PERCEPTIONS QUESTIONNAIRE IMPACT SHORT FORM (CPQ11–14–ISF:16)
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SP94 CHANGES IN INCISOR POSITION AFTER TREATMENT WITH MYOFUNCTIONAL APPLIANCES
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SP95 THE NECESSITY OF AN INTERDISCIPLINARY TREATMENT APPROACH IN ADULT ORTHODONTIC PATIENTS
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SP96 PREDICTION OF THE LATERAL MESIODISTAL WIDTH IN THE SPANISH POPULATION: A SYSTEMATIC REVIEW
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SP97 ENAMEL MICROCRACKS IN TERMS OF ORTHODONTIC TREATMENT: A NOVEL METHOD FOR THEIR DETECTION AND EVALUATION
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SP98 A STUDY OF SKULL PARAMETER DIFFERENCES IN NORMAL AND CLASS II DIVISION 2 SUBJECTS
THE NECESSITY FOR EARLY TREATMENT OF DISTAL OCCLUSION AND RETRUSION OF THE UPPER ANTERIOR TEETH

Maria Dushenkova, Marina Pavlova, Tatiana Klimova, Maria Markova, Irina Rubleva, Moscow State University of Medicine and Dentistry, Russia

COMPARISON OF SCANNING ACOUSTIC MICROSCOPY VERSUS LIGHT MICROSCOPY FOR DETERMINATION OF PERIODONTAL GAP SIZE – RESULTS OF A PILOT STUDY IN DOGS

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EFFECT OF SURFACE COATING OF ORTHODONTIC MINI-IMPLANTS ON MICROBIOLOGICAL COMPOSITION AND THEIR NUMBER INVESTIGATED IN DOGS – PROOF OF PRINCIPLE

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EFFECTS OF PREBIOTICS (XYLOOLIGOSACCHARIDE) ON THE JAW BONE OF OBESE INSULIN-RESISTANT RATS

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MATERNAL SUPPLEMENTARY FOLATE INTAKE, METHYLENETETRAHYDROFOLATE REDUCTASE C677T AND A1298C POLYMORPHISMS AND THE RISK OF OROFACIAL CLEFT

Asghar Ebadifar, Nazila Aameli, Shadi Mohebi, Shahid Beheshti University of Medical Sciences, Tehran, Semnan University of Medical Sciences and Urmia University of Medical Sciences, Iran

ENAMEL SURFACE ROUGHNESS FOLLOWING ORTHODONTIC BRACKET DEBONDING AND COMPOSITE RESIN REMOVAL USING TUNGSTEN CARBIDE AND ARKANSAS BURS

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OBSTRUCTIVE SLEEP APNOEA IS ASSOCIATED WITH REDUCED MANDIBULAR CORTICAL THICKNESS IN CHILDREN

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TREATMENT OUTCOMES OF MINIPLATE ANCHORED FIXED-FUNCTIONAL APPLIANCES

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DOES TREATMENT TIME AFFECT DEVELOPMENT OF WHITE SPOT LESIONS?

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ARE THERE ANY DIFFERENCES BETWEEN REGULAR AND SELF-LIGATION IN TERMS OF WHITE SPOT RISK?

Emel Eker, Ahmet Yalcin Güngör, Department of Orthodontics, Akdeniz University, Antalya, Turkey
SP109  EVALUATION OF PIEZOCISION IN RAPID CANINE RETRACTION
Ahmed Elkalza, Department of Orthodontics, Alexandria University, Egypt

SP110  REDUCING OVERLOADING OF INDIVIDUAL INCISORS BY UTILIZING NOVEL THIN LEVELLING ALIGNERS
Fayez Elkholy, Bernd G. Lapatki, Department of Orthodontics, University of Ulm, Germany

SP111  DETERMINATION OF SPACE REQUIREMENT IN THE DENTAL ARCH USING THE ANATOMICAL CONTACT POINTS DURING THREE-DIMENSIONAL SIMULATION OF ARCH WIDTH CHANGES
Fayez Elkholy, Catrin Bacher, Bernd G. Lapatki, Department of Orthodontics, University of Ulm, Germany

SP112  NON-FLUORIDE APPLICATIONS FOR DEMINERALIZATION PREVENTION DURING ORTHODONTIC TREATMENT: A SYSTEMATIC REVIEW
Ahmed El-Shanawany, Hashem Farouk, David Bearn, School of Dentistry University of Dundee, U.K.

SP113  EFFECTS OF BRACKET TYPE ON ROOT RESORPTION AND TREATMENT DURATION
Mustafa Murat Eruz, Ahmet Yagci, Department of Orthodontics, Erciyes University, Faculty of Dentistry, Kayseri, Turkey

SP114  EFFECT OF CASEIN PHOSPHOPEPTIDE PASTE WITH AND WITHOUT CO2 LASER IRRADIATION ON DEMINERALIZED ENAMEL MICROHARDNESS AND BRACKET SHEAR BOND STRENGTH
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SP115  PREDICTION OF CLASS II IMPROVEMENT AFTER RAPID MAXILLARY EXPANSION IN THE EARLY MIXED DENTITION
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SP116  RADIOGRAPHIC EVALUATION OF MANDIBULAR MORPHOLOGICAL CHANGES ACCORDING TO AGE
Anita Fekonja, Department of Orthodontic, Healthcare Centre Maribor, Maribor, Slovenia

SP117  CORRELATION BETWEEN RAPID MAXILLARY EXPANSION AND NOCTURNAL ENURESIS IN CHILDREN
Maria del Pilar Fernández Prada, Nuno Gustavo d’Oliveira, Josep Maria Ustrell Torrent, Facultat d’Odontologia, Universitat de Barcelona, Hospital de Llobregat, Spain

SP118  CHANGES IN SOFT TISSUE PROFILE RELATED TO TREATMENT WITH A TWIN BLOCK APPLIANCE: PERCEPTIONS OF ORTHODONTISTS AND LAY PEOPLE
Merve Fidanboy, Elif Ergin, Burcu Kilinc, Zeliha Muge Baka, Zehra Ileri, Department of Orthodontics, Selcuk University Faculty of Dentistry, Konya, Turkey

SP119  HOW EFFICIENT ARE LINGUAL ORTHODONTICS? AN ASSESSMENT OF TREATMENT OUTCOME BY COMPARING SET-UPS AND POST-TREATMENT CASTS
Clara Fontinha1,2, Paolo M Cattaneo2, Marie A Cornelis2, Departments of Orthodontics, 1University of Geneva, Switzerland and 2Aarhus University, Denmark

SP120  CHILDREN’S SUBJECTIVE EXPERIENCE OF EARLY TREATMENT OF PRENORMAL OCCLUSION WITH A RAPID MAXILLARY EXPANDER IN COMBINATION WITH A FACEMASK
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SP121  RELATIONSHIP BETWEEN THE GUBERNACULAR CORD AND IMPACTED CANINES
Atsushi Fujishiro, Ryuzo Kanomi, Practice, Himeji, Japan

SP122  ORTHODONTIC TOOTH MOVEMENT THROUGH ALVEOLAR GRAFTED SITES: A SYSTEMATIC REVIEW
Anabel Galan-Ortiz, Nuno Gustavo d’Oliveira, Josep Maria Ustrell-Torrent, Ortodencia, Universitat de Barcelona, L’Hospitala del Llobregat, Spain

SP123  ASSESSING TEMPOROMANDIBULAR JOINT PAIN AND FUNCTION BEFORE AND AFTER THE USE OF POLARIZED LIGHT
Umberto Garagiola, Paolo Cressoni, Rossano Soldo, Ettore del Rosso, Giampietro Farronato, University of Milan, Italy

SP124  THREE-DIMENSIONAL VERSUS TWO-DIMENSIONAL CEPHALOMETRIC ANALYSIS: A MORE SIMPLIFIED AND ACCURATE PROTOCOL
Umberto Garagiola, Giampietro Farronato, University of Milan, Italy

SP125  DENTAL ENAMEL COMPOSITION AFTER INTERPROXIMAL REDUCTION AND DEMINERALIZATION CYCLES
Miriam García López, Ascensión Vicente Hernández, Belen Manuela Gónzalez Paz, Jose García López, Luis-Alberto Bravo-Gonzalez, Universidad de Murcia, Spain

SP126  APICAL RESORPTION OF UPPER INCISORS DURING ORTHODONTIC TREATMENT IN CLASS III ORTHOGNATHIC SURGERY PATIENTS – CONE BEAM COMPUTER TOMOGRAPHY STUDY
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SP127  A SYSTEMATIC APPROACH FOR INTERPROXIMAL ENAMEL REDUCTION: IN VITRO AND IN VIVO EVALUATION OF DIAMOND COATED STRIPS
Francesca Gazzani, Valeria Paoloni, Giuseppina Laganà, Paola Cozza, Department of Orthodontics, University of Rome Tor Vergata, Italy

SP128  EXPERIMENTAL DETERMINATION OF CREEP BEHAVIOUR OF ALVEOLAR BONE
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SP129  THREE-DIMENSIONAL EVALUATION OF THE UPPER ARCH AND PALATE IN UNILATERAL CLEFT LIP AND PALATE SUBJECTS USING DIGITAL DENTAL CASTS
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SP130  EFFICACY OF DENTAL CARE IN IMPROVING THE ORAL HEALTH OF PATIENTS WITH SJÖGREN’S SYNDROME
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SP131  THREE-DIMENSIONAL EVALUATION OF ALVEOLAR BONE CHANGES IN RESPONSE TO DIFFERENT RAPID PALATAL EXPANSION ACTIVATION RATES
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SP132  OVERALL AND ANTERIOR TOOTH SIZE RATIOS IN A GROUP OF EMIRATIS
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SP133 SPONTANEOUS EFFECT IN MANDIBULAR DIMENSIONS CAUSED BY A RAPID MAXILLARY EXPANSION: A SYSTEMATIC REVIEW
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SP134 ASSESSMENT OF PERIODONTAL BIOMARKERS IN GINGIVAL CREVICULAR FLUID DURING ORTHODONTIC TOOTH MOVEMENT. A SYSTEMATIC REVIEW
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SP135 PERCEIVED FACIAL CHANGES OF A CONVEX PROFILE IN CLASS II DIVISION 1 PATIENTS AFTER FUNCTIONAL ORTHOPAEDIC TREATMENT FOLLOWED BY FIXED ORTHODONTIC APPLIANCES
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SP136 ASSESSMENT OF DIFFERENT TECHNIQUES FOR THREE-DIMENSIONAL SUPERIMPOSITION OF SERIAL DIGITAL MAXILLARY DENTAL CASTS ON PALATAL STRUCTURES
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SP137 ASSESSMENT OF CONDYLE AND GLENOID FOSSA POSITION AFTER CHIN CUP THERAPY
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SP138 BONE ACTIVITY ON CIRCUMMAXILLARY SUTURES WITH CONSECUTIVE MAXILLARY EXPANSION AND CONSTRUCTION BY SINGLE PHOTON EMISSION COMPUTED TOMOGRAPHY
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SP139 ASSESSMENT OF BONE ACTIVITY CHANGES OF THE TEMPOROMANDIBULAR JOINT WITH FUNCTIONAL ORTHOPAEDIC TREATMENT BY RADIONUCLIDE BONE SCANNING
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SP140 ALVEOLAR BONE GRAFT, OSTEOGENESIS DISTRACTION AND ORTHOGNATIC SURGERY IN PATIENTS WITH CLEFT LIP-ALVEOLAR AND CLEFT PALATE
Víctor Gómez Clemente, Javier López-Gasco Torres, Ana Belén Macías Gago, Iván Nieto Sánchez, Laura Aneiros Fernández, Department of Dentistry, Nebrija University-San Rafael Hospital, Madrid, Spain

SP141 CEPHALOMETRIC EFFECTS OF COMBINED RAPID PALATAL EXPANSION AND FACEMASK THERAPY
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SP142 OUTCOME OF ORTHODONTIC CARE IN THE SWEDISH PUBLIC DENTAL SERVICE
Emma Göranson, Fredrik Lundström, Mats Bågesund, Folkandvården Östergötland, Centrum för Orthodonti/Pedodonti, Linköping, Sweden
SP143 LOCAL INJECTION OF REVEROMYCIN A PREVENTS ALVEOLAR BONE LOSS IN OSTEOPROTEGERIN KNOCKOUT MICE WITH PERIODONTAL DISEASE
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SP144 HOW WELL DO CLEAR ALIGNERS WORK? OCCLUSAL AND PSYCHOMETRIC PARAMETERS OF TREATED ADULT PATIENTS
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SP145 SOCIAL MEDIA USE OF ORTHODONTIC PATIENTS - A QUALITATIVE AND QUANTITATIVE APPROACH OF EVALUATING POSTS ON TWITTER© AND INSTAGRAM©
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SP146 PREVALENCE OF TEMPOROMANDIBULAR DISORDERS IN PATIENTS WITH HASHIMOTO’S THYROIDITIS – A PILOT STUDY
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SP147 MAXILLARY EXPANSION WITH LEAF EXPANDER: A PRELIMINARY LONGITUDINAL STUDY ON CONE-BEAM COMPUTED TOMOGRAPHY IN GROWING PATIENTS
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SP148 CONE-BEAM COMPUTED TOMOGRAPHY TO EVALUATE CONDYLAR POSITION BEFORE AND AFTER ORTHOGNATHIC SURGERY
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SP149 RELATIONSHIP BETWEEN FACIAL MORPHOLOGY AND TONGUE THICKNESS MEASURED BY ULTRASONOGRAPHY
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SP150 EFFECT OF HETEROLOGOUS BONE MARROW MONONUCLEAR CELL TRANSPLANTATION ON MIDPALATAL EXPANSION IN RATS
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SP151 CRANIOFACIAL CHARACTERISTICS OF ADULTS WITH TEMPOROMANDIBULAR JOINT DISORDERS
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SP152 THE RELATIONSHIP BETWEEN SOFT TISSUE THICKNESS AND SOFT TISSUE CHANGES RESULTING FROM LE FORT I MAXILLARY SURGERY
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SP153 ORTHODONTIC TREATMENT NEED, OUTCOME AND RESIDUAL TREATMENT NEED IN 15- AND 20-YEAR-OLDS IN JÖNKÖPING COUNTY, SWEDEN
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SP154 SLEEPINESS, QUALITY OF LIFE, HEAD POSTURE AND AIRWAY DIMENSIONS IN OBSTRUCTIVE SLEEP APNOEA PATIENTS
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SP155 THE APPLICABILITY OF CAMERIERE’S EUROPEAN FORMULA OF OPEN APICES FOR DENTAL AGE ESTIMATION IN 5-17 YEAR OLD NORTH GERMAN CHILDREN

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SP156 EFFECT OF LIGATION FORCE ON ANTERIOR TORQUE CONTROL DURING SPACE CLOSURE – SIMULATION OF LONG-TERM TOOTH MOVEMENT USING THE FINITE ELEMENT METHOD

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SP157 STABILITY OF MOLAR DISTALIZATION USING ORTHODONTIC MINISCREWS

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SP158 COMPARISONS OF SKELETAL CLASS III CORRECTION BY TWO-JAW SURGERY VERSUS A MODIFIED C-PALATAL PLATE COMBINED WITH BILATERAL SAGITTAL SPLIT RAMUS OSTEOTOMY

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SP159 ROMSE - A DATABASE FOR OROFACIAL MANIFESTATIONS IN PATIENTS WITH RARE DISEASES AND A SET-UP OF A UNIFIED CLASSIFICATION FORM OF DYSGNATHIA

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SP160 REPORTED SLEEPING DISORDERS DURING EARLY OR LATE CERVICAL HEADGEAR TREATMENT – A RANDOMIZED CLINICAL TRIAL

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SP161 EFFECTS OF RAPID MAXILLARY EXPANSION ON IMPACTED MAXILLARY CANINES

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SP162 FOUR-YEAR EXPERIENCE OF THE USE OF CONE BEAM COMPUTED TOMOGRAPHY IN ORTHODONTICS: A SERVICE EVALUATION AND AUDIT

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SP163 CONE BEAM COMPUTED TOMOGRAPHY REFERRAL PATHWAY AND TIMELINE: ARE WE COMPLIANT WITH CURRENT GUIDELINES?

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SP164 GENETIC RESPONSE OF THE MASSETER MUSCLE AFTER ORTHOGNATHIC SURGERY IN COMPARISON WITH HEALTHY CONTROLS – A MICROARRAY STUDY

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SP165 PATIENTS’ PERCEPTION OF RECOVERY AFTER SURGICAL EXPOSURE OF IMPACTED MAXILLARY CANINES WITH OPEN AND CLOSED TECHNIQUE

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SP166 EVALUATION OF THE MODE OF FAILURE AND SHEAR BOND STRENGTH AFTER APPLICATION OF DIFFERENT PRIMERS OVER METAL BRACKET BASE

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SP167 ASSESSMENT OF HARD AND SOFT TISSUE CHANGES AFTER BIMAXILLARY ORTHOGNATHIC-SURGERY TREATMENT IN SKELETAL CLASS III PATIENTS IN SHIRAZ

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SP168 PSYCHOLOGICAL IMPACT OF ORTHOGNATHIC SURGERY IN ORAL HEALTH-RELATED QUALITY OF LIFE

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SP169 CANINE IMPACTION IN PATIENTS WITH UNILATERAL CLEFT LIP AND PALATE AFTER SECONDARY ALVEOLAR BONE GRAFTING: A RETROSPECTIVE STUDY

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SP170 PERIODONTAL OUTCOMES OF TREATED IMPACTED PALATAL MAXILLARY CANINES: A SYSTEMATIC REVIEW

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SP171 CLASS II: EARLY VERSUS LATE TREATMENT

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SP172 CAN WE EFFECTIVELY TREAT ORTHODONTICALLY-INDUCED WHITE SPOT LESIONS IN AN EVIDENCE-BASED MANNER? A SYSTEMATIC REVIEW AND META-ANALYSIS

Damian Höchli, Monika Hersberger-Zurfluh, Spyridon N. Papageorgiou, Theodore Eliades, University of Zurich, Switzerland

SP173 OUTCOMES OF PRE-SURGICAL ORTHOPAEDICS IN NON-SYNDROMIC CLEFT LIP AND/OR PALATE PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED TRIALS

Hamid Reza Hosseini, Eleftherios G. Kaklamanos, Athanasios E. Athanasiou, Hamdan Bin Mohammed College of Dental Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, United Arab Emirates

SP174 TYPES OF TOOTH MOVEMENT DO NOT AFFECT DISPLACEMENT OF THE CENTRE OF RESISTANCE BUT DO ALVEOLAR BONE RESORPTION IN A RAT MODEL

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SP175 CONTINUOUS ERUPTION OF MAXILLARY TEETH DURING A TEN YEAR PERIOD IN A FEMALE ADULT SAMPLE
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SP176 CHANGES OF SELF-FACIAL RECOGNITION AND EYE-GAZE PATTERN ASSOCIATED WITH INDIVIDUAL PSYCHOLOGICAL CONDITION AFTER ORTHODONTIC TREATMENT
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SP177 OSTEOPTIN GENE MEDIATES EXTERNAL APICAL ROOT RESORPTION IN ORTHODONTIC PATIENTS
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SP178 MECHANICAL PROPERTIES OF A SCREW EXPANDER WITH BUILT-IN SUPERELASTIC NICKEL TITANIUM COIL SPRINGS
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SP179 EFFECT OF TEMPERATURE ON THE DYNAMIC MECHANICAL PROPERTIES OF COMPOSITES USED FOR LINGUAL RETAINER BONDING
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SP180 GALVANIC COUPLING OF LINGUAL BRACKETS MADE OF STAINLESS STEEL AND GOLD ALLOYS WITH ARCHWIRES
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SP181 EVALUATION OF ORAL HEALTH KNOWLEDGE OF TEACHERS FROM TWO PRIVATE KINDERGARTEN SCHOOLS IN SÃO PAULO
Roberta Ilinsky, Livia Pompeia, Kurt Faltin Junior, Cristina Lucia Feijó Ortolani, University Pulista, Sao Paulo, Brazil

SP182 PREDICTION OF DENTOFACIAL CHANGES INDUCED BY ARTICULATOR INTENDED FOR ORTHOGNATHIC SURGERY
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SP183 ALTERATION OF SURFACE HARDNESS OF HUMAN ENAMEL AFTER ETCHING AND DEBONDING OF ORTHODONTIC BRACKETS. AN EX VIVO STUDY
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SP184 COMPARATIVE ASSESSMENT OF AS RECEIVED AND INTRAORAL AGED MULTISTRANED ORTHODONTIC WIRE USED IN FIXED RETENTION
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SP185 COMPARISON BETWEEN THE CARRIÈRE DISTALIZER AND EXTRAORAL TRACTION CONCERNING MOLAR DISTALIZATION, APICAL ROOT RESORPTION AND PATIENT PERCEPTION
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SP186 THE INCREASE OF MAXILLARY LATERAL EXPANSION LIMIT BY TOPICAL APPLICATION OF FLUVASTATIN
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SP187 ELUCIDATION OF CARTILAGE DIFFERENTIATION CONTROL MECHANISM BY FLUVASTATIN APPLICATION
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SP188 THE EFFICACY AND EFFECTIVENESS INDUCED BY DIODE LASER BIOSTIMULATION ON THE RATE OF ORTHODONTIC TOOTH MOVEMENT
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SP189 FACIAL ASYMMETRY IN SKELETAL CLASS III PATIENTS TREATED WITH ORTHODONTIC-ORTHOGNATHIC SURGERY
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SP190 REPORTED CHANGES IN ORAL HEALTH-RELATED QUALITY OF LIFE IN CHILDREN DURING AND AFTER ORTHODONTIC TREATMENT: A LONGITUDINAL STUDY
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SP191 SURGICALLY ASSISTED MAXILLARY PROTRACTION VERSUS LE FORT 1 OSTEOTOMY IN CLEFT LIP AND PALATE PATIENTS
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SP192 SYSTEMATIC REVIEW OF ORTHOPAEDIC TREATMENT FOR CLASS III MALOCCLUSION: OVERVIEW OF SYSTEMATIC REVIEWS
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SP193 CHANGES OF THE OCCLUSAL PLANES FOLLOWING ORTHODONTIC TREATMENT AND THEIR RELATIONSHIP TO THE CHANGE OF MANDIBULAR POSITION
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SP194 ACTIVITY OF MASSETER AND TEMPORAL MUSCLE DURING DAYTIME CLENCHING IN ADOLESCENT AND ADULT SLEEP BRUERSERS
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SP195 EXPRESSION OF TGFβ, CD34, NESTIN AND KI67 IN CLEFT-AFFECTED TISSUE
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SP196 COST ANALYSIS OF ORTHOGNATHIC SURGERY IN CLEFT LIP AND CLEFT PALATE PATIENTS
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SP197 THE EFFECT OF PHOTODYNAMIC THERAPY ON GINGIVAL HYPERPLASIA DURING TREATMENT WITH FIXED APPLIANCES
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SP198 COMPARISON OF MEDIAL ASPECT OF THE RAMUS FOR SAGITTAL SPLIT RAMUS OSTEOTOMY IN PATIENTS WITH DIFFERENT SKELETAL PATTERNS
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SP199 PALATAL IMPLANTS VERSUS PALATAL MINISCREWS FOR REINFORCEMENT OF ANCHORAGE DURING ORTHODONTIC TREATMENT. A SYSTEMATIC REVIEW
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SP200 ASSESSMENT OF THERAPY CHARACTERISTICS OF CLASS I MALOCCLUSIONS TREATED WITH THE CONVENTIONAL STRAIGHTWIRE METHOD OR THE DAMON TECHNIQUE: A RANDOMIZED TRIAL
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SP201 CHANGES IN MANDIBULAR EXTRACTION SPACES FOLLOWING PREMATURE LOSS OF FIRST PRIMARY MOLARS: A SYSTEMATIC REVIEW AND META-ANALYSIS
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SP202 ARE ERUPTION GUIDANCE APPLIANCES CLINICALLY EFFECTIVE? A SYSTEMATIC REVIEW
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SP203 ORTHODONTIC TREATMENT IN BISPHOSPHONATE PATIENTS: A SYSTEMATIC REVIEW
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SP204 OCCLUSAL TRAITS OF A SAMPLE OF 153 DENTAL STUDENTS WITH A PAST ORTHODONTIC HISTORY
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SP205 FACIAL PROFILE AS RELATED TO SEVERITY OF OVERJET AND OVERBITE
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SP206 MECHANICAL PROPERTIES AND ION RELEASE FROM NICKEL-TITANIUM WIRES WITH VARIOUS SURFACE COMPOSITIONS IN ARTIFICIAL SALIVA
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SP207 QUANTIFYING DIFFERENCES IN FACIAL MORPHOLOGY IN CROATIAN, ENGLISH AND WELSH CAUCASIAN POPULATIONS
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SP208 RELATIONSHIP OF CHRONOLOGICAL AGE WITH REFERENCE TO CRANIOFACIAL MORPHOLOGY IN CHILDREN WITH OBSTRUCTIVE SLEEP APNEA
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SP209 BIOCHEMICAL EXPRESSION OF VASCULAR ENDOTHELIAL GROWTH FACTOR WITH NEOVASCULARIZATION DURING OCCLUSAL HYPOFUNCTION: A MOUSE EXPERIMENTAL STUDY
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SP210 ASSESSMENT THE RELIABILITY OF THREE DIFFERENT MIXED DENTITION ANALYSIS METHODS IN A TURKISH POPULATION
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SP211 CLINICAL COMPARISON OF THE EFFICACY OF SPACE CLOSURE IN FIRST PREMOLAR EXTRACTION CASES BY ELASTOMERIC CHAIN AND ELASTIC MODULE
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SP212 NASOLABIAL SYMMETRY IN CLEFT PATIENTS BEFORE AND AFTER BONE GRAFT PLACEMENT: TWO-DIMENSIONAL PHOTOGRAPHY
Eveline Kerckhof, Liesbet Temmerman, Guy De Pauw, University of Ghent, Belgium

SP213 A COMPARISON OF DIFFERENT RADIOGRAPHIC METHODS FOR DENTAL AGE ESTIMATION IN 5-17 YEAR OLD NORTH GERMAN CHILDREN
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SP214 EFFECT OF THE CONGENITALLY MISSING MAXILLARY LATERAL INCISOR ON SAGITTAL MAXILLOMANDIBULAR JAW DIMENSIONS
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SP215 SYMPHYSIS MORPHOLOGY AND DIMENSIONS IN HYPERDIVERGENT PATIENTS WITH DIFFERENT ANTEROPosterIOR SKELETAL RELATIONSHIPS
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SP216 A STUDY OF THE HORIZONTAL REFERENCE PLANES ON LATERAL CEPHALOGRAM IN KOREAN CHILDREN
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SP217 NASAL CHANGES AFTER SURGICAL CORRECTION OF SKELETAL CLASS III MALOCCLUSION IN KOREANS
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SP218 FLUORIDE VARNISH EFFICACY IN PREVENTING WHITE SPOTS AND GINGIVITIS DURING FIXED ORTHODONTIC TREATMENT – A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL
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SP219 FOLLOW-UP STUDY OF BONE ANCHORED MAXILLARY PROTRACTION TREATMENT OF THE HYPOPLASTIC MAXILLA WITH DIFFERENT TYPES OF CLEFT LIP AND PALATE PATIENTS
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SP220 ADVANCED TREATMENT OPTIONS WITH THE C-PLATE – SKELETAL ANCHORAGE IN THE MANDIBLE
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SP221 QUANTIFICATION OF DENTAL PLAQUE IN MULTIBRACKET APPLIANCE PATIENTS: IS THERE A RELIABLE METHOD?
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SP222 THE EFFECT OF CERVICAL HEADGEAR ON DENTAL ARCH AREA
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SP223 WEAR-TIME REGISTRATION DURING ORTHOPAEDIC TREATMENT WITH THE MODIFIED FRÄNKEL 3 APPLIANCE – A 24 MONTH MICROELECTRONIC EVALUATION
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SP224 EVALUATION OF PATIENT DISCOMFORT AND PAIN AFTER PIEZOELECTROC CORTICOTOMY
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SP225 PREVALENCE OF MALOCCLUSION TRAITS AND ORTHODONTIC TREATMENT IN A FINNISH ADULT POPULATION
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SP226  SUBJECTIVE JUDGMENT AND OBJECTIVE MEASUREMENT OF PROFILE CHANGES DURING SURGICAL OR NON-SURGICAL TREATMENT OF ADULT CLASS II DIVISION 1 FEMALES
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SP227  SOFTWARE DIAGNOSTIC FEATURES AND ALIGNER CONSTRUCTION
Denis Kuznetsov, Nikolai Lipin, Orthodontics, SimplyCeph, Moscow, Russia

SP228  INFLUENCE OF ORTHODONTIC TREATMENT ON THE FUNCTIONAL STATE OF THE DENTAL JAW SYSTEM IN THE DEVELOPING DENTITION
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SP229  ANALYSIS OF BIOPOTENTIALS OF MUSCLES IN SUBJECTS WITH MESIOCLUSION
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SP230  ASSESSMENT OF HEAD ASYMMETRY IN PREMATURELY BORN CHILDREN DURING EARLY CHILDHOOD USING THREE-DIMENSIONAL PHOTOGRAPHY
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SP231  COMPARISON OF THREE-DIMENSIONAL SKELETAL AND DENTAL CHANGES IN MAXILLARY EXPANSION TREATMENT WITH THE HYRAX OR DAMON SYSTEM
Manuel Lagravere, Paul Major, University of Alberta, Edmonton, Canada

SP232  EFFECT OF A FLUORIDE-RELEASING VARNISH ON SHEAR BOND STRENGTH OF BRACKETS BONDED ON DEMINERALIZED ENAMEL
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SP233  SPEECH DISORDERS, EAR, NOSE AND THROAT CONDITIONS AND TONGUE POSTURE IN ANTERIOR OPEN BITE PRESCHOOL CHILDREN
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SP234  REDUCTION OF GINGIVAL RECESSIONS BY ORTHODONTIC TREATMENT
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SP235  ACCURACY OF THE COMPOSITE TOOTH MODEL FROM INTRA-ORAL SCANNED CROWN AND CONE-BEAM COMPUTED TOMOGRAPHY ROOT: AN IN VIVO STUDY
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SP236  REPORTING EXPERT PANELS METHODOLOGY IN ORTHODONTIC RESEARCH: A PROPOSED CHECKLIST FOR IMPROVEMENT
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SP237  RECONSTRUCTION OF THE ALVEOLAR RIDGE BY TOOTH TRANSPLANTATION
Manfred Leunisse, Edwin Eggink, Marcel Linssen, Dick Barendregt, ProClin, Rotterdam, Netherlands

SP238  A COMPREHENSIVE ORTHODONTIC DIAGNOSIS IN CHILDREN WITH 22Q11.2 DELETION SYNDROME
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SP239  THREE-DIMENSIONAL VOLUMETRIC ANALYSIS OF PHARYNGEAL AIRWAY VOLUME IN SKELETAL I, II AND III PATIENTS
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SP240  RELIABILITY OF AN INTRAORAL SCANNER: A COMPARISON BETWEEN IN VIVO AND EX VIVO SCANS
Seung Weon Lim, Hussein Aljawad, Gyu Hyeng Lee, Youn Ju Kee, Hoijeong Lim, Chonnam National University, Gwangju, Korea, South

SP241  CONDYLAR DISPLACEMENT IN SAGITTAL SPLIT RAMUS OSTEOTOMY PATIENTS WITH FACIAL ASYMMETRY: COMPARISON BETWEEN CONVENTIONAL AND THE SURGERY-FIRST APPROACH
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SP242  PREDICTION OF COMBINED MESIODISTAL CROWN WIDTHS OF UNERUPTED PERMANENT CANINE AND PREMOLARS IN A SINGAPORE CHINESE POPULATION
Shy Min Lim, Kelvin, Wen Chiong Foong, Hung Chew Wong, Kenji Takada, National University Hospital Singapore, Singapore

SP243  LOWER INCISOR INCLINATION AFTER TWIN BLOCK TREATMENT: A CLINICAL COMPARISON OF TWO ALTERNATIVE DESIGNS
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SP244  AN AUDIT OF ORTHOGNATHIC SURGERY WAITING TIME IN A UNITED KINGDOM NATIONAL HEALTH SERVICE HOSPITAL
Hayley Llandro, Department of Oral Surgery and Orthodontics, Stoke Mandeville Hospital, Aylesbury, U.K.

SP245  AUDIT TO ASSESS ORTHODONTIC REFERRAL PATTERNS AT STOKE MANDEVILLE HOSPITAL, UNITED KINGDOM
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SP246  THE INFLUENCE OF NON-STERoidal ANTI-INFLAMMATORY DRUGS ON ORTHODONTIC TOOTH MOVEMENT- REVIEW OF THE LITERATURE
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SP247  EFFICACY OF LASER IN PAIN CONTROL AND TOOTH MOVEMENT DURING ORTHODONTIC TREATMENT. A LITERATURE REVIEW
Javier López-Gasco Torres, Víctor Gómez Clemente, Iván Nieto Sánchez, Ana Belén Macías Gago, Laura Aneiros Fernández, Department of Dentistry, Nebrija University-San Rafael Hospital, Madrid, Spain

SP248 PERCEPTION BY ORTHODONTISTS, GENERAL DENTISTS AND LAYPERSONS OF SMILE AESTHETICS WITH MANDIBULAR INCISOR EXPOSURE

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SP249 PREDICTION OF THE MESIODISTAL CROWN WIDTHS OF UNERUPTED CANINES AND PREMOLARS IN THE SINGAPORE MALAY POPULATION

Wilson Lu, Kenji Takada, Kelvin Foong, Hung Chew Wong, National University of Singapore, Singapore

SP250 ORAL FUNCTIONS AND ORTHODONTIC TREATMENT NEED: AN EPIDEMIOLOGICAL STUDY IN FRANCE

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SP251 PROGRESSION OF VOLUMETRIC AND SURFACE TOOTH WEAR IN PATIENTS HAVING UNDERGONE ORTHODONTIC TREATMENT: A SYSTEMATIC REVIEW AND META-ANALYSIS

Miltiadis Makrygiannakis, Eleftherios G. Kaklamanos, Alexander Milosevic, Athanasios E. Athanasiou, Hamdan Bin Mohammed College of Dental Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, United Arab Emirates

SP252 MYOFIBROBLAST EXPRESSION DURING ORTHODONTIC TOOTH MOVEMENT

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SP253 CAN WE GET ALL THE ANSWERS WITH ONLY ONE QUESTION?

Iva Manevska, Vesna Jankulovska, Elena Petrova, Irena Gavrilovikj, Gabriela Kjurchieva Chuchkova, Department of Orthodontics, University Ss.Cyril and Methodius, Skopje, Former Yugoslav Republic of Macedonia

SP254 COMPARISON OF CLINICAL OUTCOMES USING APPLIANCES FOR DISTALIZATION OF MOLARS WITH AND WITHOUT SKELETAL ANCHORAGE

Martin Mariyanov, Medical University Sofia, Bulgaria

SP255 EVALUATION OF THE CHANGES IN VERTICAL SKELETAL RELATIONSHIPS WITH THE USE OF THE SKELETAL FROG APPLIANCE

Martin Mariyanov, Vladimir Petrunov, Medical University Sofia, Bulgaria

SP256 EFFECTIVENESS OF ANTERIOR OPEN BITE TREATMENT FOR PATIENTS IN THE MIXED DENTITION WITH NON-NUTRITIVE HABITS: A LITERATURE REVIEW

Jorge Marquez Perez, Javier De La Cruz Perez, Iván Nieto Sánchez, Inés Díaz Renovales, Carmen Mediero Pérez, Department of Dentistry, University Alfonso X el Sabio, Madrid, Spain

SP257 SHORT- AND LONG-TERM EVALUATION OF MANDIBULAR DENTAL ARCH DIMENSIONAL CHANGES IN PATIENTS TREATED WITH A LIP BUMPER FOLLOWED BY FIXED APPLIANCES

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SP258 DENTAL ARCH DIMENSIONS ON THREE-DIMENSIONAL DIGITAL AND PLASTER STUDY MODELS IN INDIVIDUALS WITH A UNILATERAL CLEFT LIP AND PALATE
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SP259 IS OBESITY A RISK FACTOR FOR PERSISTENT POST-SURGICAL INFECTION IN ORTHOGNATHIC SURGERY?
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SP260 OBESITY IN ORTHOGNATHIC PATIENTS IN THE UNITED KINGDOM – IS A PROTOCOL REQUIRED?
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SP270 ROLE OF CATHEPSIN S AND AUTOPHAGY IN ORAL INFLAMMATION AND INFECTION
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SP271 INFLUENCE OF LONG-TERM IN VIVO EXPOSURE ON BRACKET SLOT CHARACTERISTICS – A MICROCOMPUTER TOMOGRAPHY ANALYSIS
Uros Mezeg, Alexei Zhurov, Andraz Legat, Maja Ovsenik, Jasmina Primozic, 1Beli medved doo, Radovljica, Slovenia, 2University of Cardiff, U.K., 3Slovenian National Building and Civil Engineering Institute, Ljubljana and 4University of Ljubljana, Slovenia

SP272 EFFECTS OF THE MODIFIED FRÄNKEL REGULATOR 3 ON MAXILLARY AND MANDIBULAR MORPHOLOGY AND TONGUE POSTURE – A CLINICAL CONTROLLED STUDY
Jasmina Primozic, Alexei Zhurov, Maja Ovsenik, Franc Farcnik, University of Ljubljana, Slovenia and 1University of Cardiff, U.K.

SP273 THE EFFECT OF ORTHODONTIC TREATMENT ON THE POSITION AND SPACE AVAILABLE FOR UPPER AND LOWER THIRD MOLARS
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SP274 TORQUE RECORDINGS OF ORTHODONTIC MINISCREWS AT THREE DIFFERENT TIMEPOINTS: PRELIMINARY RESULTS FROM A RANDOMIZED CLINICAL TRIAL
Marco Migliorati, Sara Drago, Benedetta Robotti, Armando Silvestrini Biavati, Department of Orthodontics, Genoa University, Italy

SP275 ANALYSIS OF TORQUE EFFICACY IN FIXED VESTIBULAR ORTHODONTIC BRACKET-WIRE SYSTEM
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SP276 SKELETAL AND DENTOALVEOLAR CHANGES COMPARING EXTRACTION AND NON-EXTRACTION TREATMENT OF CLASS II MALOCCLUSION
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SP277 EXPECTATIONS OF PERIODONTALLY COMPROMISED PATIENTS REGARDING ORTHODONTIC TREATMENT AND ITS EFFECTS
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SP278  LONG-TERM STABILITY ASSESSMENT OF DIFFERENT SIZES OF MINI-IMPLANTS PLACED IN THE POSTERIOR PART OF THE MANDIBULAR BODY
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SP279  EVALUATION OF DIODE LASER AND PHOTODYNAMIC THERAPY ON REDUCTION OF GINGIVAL INFLAMMATION IN FIXED ORTHODONTIC PATIENTS
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SP280  SKELETAL AND DENTAL PATTERNS IN PATIENTS WITH OLIGODONTIA
Haruyo Miyazaki, Mihoko Hirai, Yuka Yasumura, Takenori Ishii, Teruo Sakamoto, Department of Orthodontics, Tokyo Dental College, Japan

SP281  EFFECTS OF B1 ADRENALINE RECEPTOR BLOCKER ON EXPERIMENTAL TOOTH MOVEMENT IN SPONTANEOUSLY HYPERTENSIVE RATS
Ken Miyazawa, Atsushi Takeguchi, Shigemi Goto, Department of Orthodontics, Aichi Gakuin University, Nagoya, Japan

SP282  THE CENTRE OF RESISTANCE OF THE MANDIBULAR DENTITION WITHOUT THE FIRST PREMOLAR
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SP283  A COMPARISON OF THE EFFECT OF CASEIN PHOSPHOPEPTIDE-AMORPHOUS CALCIUM PHOSPHATE, FLUORIDE AND A COMBINATION ON INITIAL CARIES LESION: FINAL OUTCOME
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SP284  OROFACIAL FUNCTION AND OCCLUSION IN A GROUP OF CHILDREN WITH SPEECH SOUND DISORDERS
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SP285  EVALUATION OF ENAMEL SURFACE ROUGHNESS FOLLOWING ORTHODONTIC TREATMENT
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SP286  MATURATIONAL CHANGES OF THE CERVICAL VERTEBRAE IN RELATION TO CRANIOFACIAL GROWTH SPURT IN ORTHODONTIC CLASS I
Mona Montasser, Department of Orthodontics, Mansoura University, Egypt

SP287  NON-SURGICAL MANAGEMENT OF DEVELOPING AND BORDERLINE CLASS III CASES
Shams Moopen, Orthodontics, Moopen Dental Care, Northampton, U.K.

SP288  RAPID PALATAL EXPANSION WITH A HYRAX BANDED COMPARED IN THE PRIMARY AND PERMANENT DENTITION
Beatriz Morandeira Lázaro1, Juan Sánchez Holgado1, Manuel Morandeira Saavedra2, Iván Nieto Sánchez1, Javier De la Cruz Pérez1, 1Department of Dentistry, University Alfonso X el Sabio, Madrid and 2Orthodontic clinic, Morandeira, Spain
VALIDATION OF AN INSTRUCTION METHOD TO IMPROVE ORTHODONTIC DIAGNOSIS BY UNDERGRADUATES

Cristina Moreno, Marta Olmos, Lidia Sotelo, Ana López, Martín Romero, Rey Juan Carlos, Alcorcón, Spain

COMPARISON OF THE SUPERELASTICITY OF DIFFERENT NICKEL-TITANIUM ORTHODONTIC ARCHWIRES AND THE LOSS OF THEIR PROPERTIES BY HEAT TREATMENT

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COMPARISON OF THE THICKNESS OF THE ALVEOLAR WALL IN A MULTI-PLATFORM IMAGING STUDY

Kim Mueller, Carlaberta Verna, Michel Dalstra, Department of Orthodontics, University of Basel, Switzerland

AN INVESTIGATION INTO THE RELATIONSHIP BETWEEN THE MANDIBULAR FOSSA AND MANDIBULAR MORPHOLOGY IN MANDIBULAR PROGNATHISM WITH FACIAL ASYMMETRY

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EFFECTIVENESS OF DENTAL RETENTION AND ITS RELATIONSHIP WITH RELAPSE

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A RANDOMIZED CLINICAL TRIAL PROTOCOL FOR EVALUATING THE EFFECTIVENESS OF ELECTRIC TOOTHBRUSHES IN ORTHODONTIC PATIENTS. THE SPIRIT STATEMENT

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EFFECT OF ELECTRIC AND MANUAL TOOTHBRUSHES ON PLAQUE REMOVAL AND PERIODONTAL STATUS DURING ORTHODONTIC TREATMENT. A SYSTEMATIC LITERATURE REVIEW

Ioulia Maria Mylonopoulou, Demetrios Halazonetis, Department of Orthodontics, National and Kapodistrian University of Athens, Greece

COMPARISON OF ACCURACY OF MAXILLARY REPOSITIONING IN SINGLE PROCEDURE SURGERY (LE FORT I) WITH CONVENTIONAL VERSUS VIRTUAL MODEL SURGERY

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DIFFERENTIATION OF MESENCHYMAL STEM CELLS DERIVED FROM iPS CELLS INTO OSTEOBLAST-LIKE CELLS

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SP300 STABILITY OF ANTERIOR MAXILLARY ADVANCEMENT USING TOOTH SUPPORTED DISTRACTION OSTEOSTEOTOMY
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SP301 EXTRACTION OF THE PRIMARY CANINE IN CHILDREN WITH PALATALLY DISPLACED CANINES: PREDICTIVE VARIABLES IN PANORAMIC RADIOGRAPHS
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SP302 MECHANICAL STABILITY PROPERTIES OF ORTHODONTIC MINI-IMPLANTS. AN IN VITRO STUDY
Konstantinos Naziris, Falko Schmidt, Bernd G. Lapatki, Department of Orthodontics, University Ulm, Germany

SP303 EXPERIMENTAL FRICTIONAL FORCES PRODUCED BY DIFFERENT TYPES OF LIGATURES DURING SIMULATED INTRUSION-EXTRUSION IN A THREE-BRACKET MODEL
Konstantinos Naziris, Falko Schmidt, Bernd G. Lapatki, Department of Orthodontics, University Ulm, Germany

SP304 THE INFLUENCE OF CORTICAL BONE THICKNESS ON MINISCREW MICRODAMAGE
Melissa Nguyen, John Codrington, Lloyd Fletcher, Craig Dreyer, Wayne Sampson, The University of Adelaide, Australia and University of Southampton, Hampshire, U.K.

SP305 AGREEMENT BETWEEN PATIENTS WITH A CLEFT, THEIR PARENTS AND DOCTOR ON THE CLEFT HEARING, APPEARANCE AND SPEECH QUESTIONNAIRE IN TWO POPULATIONS
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SP306 SNORING AND DEVELOPMENT OF THE PRIMARY DENTITION AND SOFT TISSUE PROFILE
Pekka Niemi, Saara Markkanen, Mika Helminen, Markus Rautiainen, Timo Peltomäki, Department of Maxillofacial Surgery and Oral Diseases, Satakunta Central Hospital, Pori, Finland

SP307 APPLICATION OF ORTHODONTIC FUNCTIONAL APPLIANCES IN FEMALE PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA
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SP308 STABILITY OF A MINISCREW-SUPPORTED TOOTH AS INDIRECT ANCHORAGE
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SP309 THE LEVEL OF SATISFACTION AFTER ORTHODONTIC TREATMENT AND ITS INFLUENCING FACTORS ON ADULT PATIENTS
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SP310 IMPLICATIONS OF DESIGNATING MAXILLARY EXPANSION ACTIVATION TO PARENTS ON THE ACTIVATION PROTOCOL
Alessandro Nota, Simona Tecco, Alberto Baldini, University Tor Vergata, Roma and Vita-Salute San Raffaele University, Milano, Italy
SP311  THE MHC-APP GIVES YOU THE OPPORTUNITY TO EASILY FIND INFORMATION ABOUT ORAL HEALTH, OROFACIAL FUNCTION AND CRANIOFACIAL MORPHOLOGY IN RARE DISEASES
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SP312  NASAL OBSTRUCTION INDUCES MEMORY AND LEARNING IMPAIRMENT AND DECREASES THE NUMBER OF HIPPOCAMPAL NEURONS IN GROWING MICE
Takuya Ogawa1, Hidemasa Okihara1, Satoshi Kokai1, Makoto Michikawa2, Takashi Ono1, 1Department of Orthodontic Science, Tokyo Medical and Dental University and 2Department of Biochemistry, Nagoya City University, Japan

SP313  VISUAL EVALUATION OF DIGITAL PANORAMIC RADIOGRAPHIC IMAGES VARIED BY EXPOSURE CONDITIONS
Yasuhiko Okumura, Keisuke Saitou, Yoshihiro Saitou, Maki Izawa, Ysuo Harata, Department of Diagnostic & Therapeutic Sciences, Meikai University, School of Dentistry, Sakado, Japan

SP314  PREVALENCE OF MALOCCLUSION AND ORTHODONTIC TREATMENT NEED IN INDIGENOUS SOUTH AMERICAN ADOLESCENTS
Maria Fernanda Orellana Valvekens, Alain Balon-Perin, Victoire Delfour, Regine Glineur, Erasme, ULB, Bruxelles, Belgium

SP315  A NEW EXPANSION APPLIANCE COMPARED WITH THE ROUTINE THREE-AXIS EXPANSION APPLIANCE IN TERMS OF DENTAL ARCH CHANGES AND PATIENT PROBLEMS DURING TREATMENT
Morteza Oshagh, Shahla Momeni, Zahra Shekoohi, Amir Manouchehri, Khadije Hajian, Shiraz Dental University, Iran

SP316  CEPHALOMETRIC ANALYSIS IN THE DIAGNOSIS OF TONGUE DYSFUNCTION
Sandra Osiewacz, Elżbieta Pawłowska, Medical University of Lodz, Poland

SP317  EVALUATION OF ORAL HYGIENE PRACTICES IN ORTHODONTICALLY TREATED CHILDREN WITH ASPERGER SYNDROME
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SP318  EFFECTS OF MANDIBULAR RETRUSIVE DEVIATION ON PREFRONTAL CORTEX ACTIVATION: A FUNCTIONAL NEAR-INFRARED SPECTROSCOPY STUDY
Takero Otsuka, Tateshi Shimazaki, Toshitsugu Kawata, Kanagawa Dental University, Yokosuka, Japan

SP319  THE EFFECT OF TONGUE POSTURE ON JAW MORPHOLOGY IN PRE-PUBERTAL CLASS III CHILDREN: A THREE-DIMENSIONAL EVALUATION
Maja Ovsenik1, Alexei Zhurov2, Stephen Richmond2, Jasmina Primozic1, Franc Farncik1, 1University of Ljubljana, Slovenia and 2University of Cardiff, U.K.

SP320  EFFECTS OF SKELETALLY ANCHORED CLASS II ELASTICS: A PILOT STUDY AND A NEW APPROACH FOR THE TREATMENT OF CLASS II MALOCCLUSION
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SP321  IS THE TREADLOK BRACKET BASE MORE DURABLE THAN THE MESH BRACKET BASE?
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SP322  INVESTIGATION OF INSULIN GROWTH FACTOR-1 GENE MUTATIONS AND POLYMORPHISMS IN NON-SYNDROMIC SUBJECTS WITH RETROGNATHIC MANDIBLES
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SP323 ENAMEL SURFACE QUALITY AFTER ADHESIVE REMNANT REMOVAL: A COMPARATIVE CONFOCAL MICROSCOPY STUDY
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SP324 MODERN METHODS OF IMAGING EVALUATION OF ALVEOLAR BONE MODIFICATIONS DURING ORTHODONTIC TREATMENT IN ADULTS
Mariana Pacurar1, Ecaterina Ionescu2, Elina Teodorescu1, Manuela Chibelean1, Silvia Pop1, Departments of Orthodontics, Universities of Medicine and Pharmacy, 1Tirgu Mures and 2Bucharest, Romania

SP325 EVALUATION OF SURFACE ROUGHNESS OF ORTHODONTIC METALLIC WIRES
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Aim: To compare the surface roughness of five different types of orthodontic archwires.

SP326 A QUESTIONNAIRE CONCERNING ORTHODONTIC RETENTION PROCEDURES IN THE NETHERLANDS AND NEW ZEALAND: A COMPARISON
Jens Padmos1. Anne Marie Renkema2, Pjotr Fudalej3, 1ACTA, Amsterdam, Netherlands, 2Radboud University, Nijmegen, Netherlands and 3University of Bern, Switzerland

SP327 QUALITY OF LIFE OF ADOLESCENT ORTHODONTIC PATIENTS
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SP328 ASSOCIATIONS BETWEEN SINGLE NUCLEOTIDE POLYMORPHISMS IN MICRORNA PROCESSING GENES AND RISK OF NON-SYNDROMIC OROFACIAL CLEFTS
Yongchu Pan, Weibing Zhang, Lin Wang, Nanjing Medical University, China

SP329 THE ROLE OF THE DENTAL HYGIENIST ON THE GINGIVAL HEALTH OF PATIENTS UNDERGOING ORTHODONTIC TREATMENT WITH MULTIBRACKET FIXED APPLIANCE AND CLEAR ALIGNERS
Ada Pango, Rosaria Bucci, Vincenzo D’Antò, Ambra Michelotti, Rosa Valletta, Department of Orthodontics and Temporomandibular Disorders, University of Naples Federico II, Italy

SP330 ELECTROMYOGRAPHIC ACTIVITY OF THE MASSETER MUSCLE IN PATIENTS WITH A CLASS III SKELETAL RELATIONSHIP
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SP331 CLINICAL OUTCOMES OF CLEAR ALIGNER THERAPY. A SYSTEMATIC REVIEW
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SP332 IMPLANT SITE DEVELOPMENT IN THE ANTERIOR MAXILLA AFTER TOOTH EXTRACTION WITH ORTHODONTIC FORCED ERUPTION. A CONE BEAM COMPUTED TOMOGRAPHY CLINICAL PILOT STUDY
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Surgery, Implantology and Dental Radiology, Aristotle University of Thessaloniki, Greece and 1Department of Orthodontics, Hamdan Bin Mohammed College of Dental Medicine, Dubai, United Arab Emirates

SP333 CORTICOTOMIES AND ORTHODONTIC TOOTH MOVEMENT. A SYSTEMATIC REVIEW
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SP334 DOES ORTHODONTIC TREATMENT INFLUENCE PERMANENTLY THE SUBGINGIVAL MICROFLORA: A SYSTEMATIC REVIEW AND META-ANALYSIS
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SP335 CLINICAL OUTCOME OF ORTHODONTIC TREATMENT WITH FIXED APPLIANCES: AN EVIDENCE-BASED ASSESSMENT WITH THE AMERICAN BOARD OF ORTHODONTISTS GRADING SYSTEM
Spyridon N. Papageorgiou, Damian HÖchli, Theodore Eliades, Clinic of Orthodontics and Pediatric Dentistry, Center of Dental Medicine, University of Zurich, Switzerland

SP336 SHAPE COVARIATION BETWEEN THE DENTAL ARCHES AND THE CRANIOFACIAL COMPLEX
Alexandros Papagiannis Demetrios Halazonetis, Department of Orthodontics, National and Kapodistrian University of Athens, Greece

SP337 ASTHMA AND ORTHODONTIC TREATMENT: LIMITATIONS AND CONSIDERATIONS
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SP338 EARLY TREATMENT OF CLASS III DENTOSKELETAL DISHARMONY: COMPARISON OF TWO PROTOCOLS
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SP339 EFFECTS OF TEMPOROMANDIBULAR JOINT DISK DISPLACEMENTS ON CHANGES IN MANDIBULAR CONDYLE DENSITY
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SP340 EVALUATION OF SOFT TISSUE CHANGES BEFORE AND AFTER ORTHOGNATHIC SURGERY IN CLASS III FACIAL ASYMMETRY ON FRONTAL FACIAL PHOTOGRAPHS
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SP342 COMPARATIVE EVALUATION OF REMINERALIZATION AGENTS AND ARTIFICIAL SALIVA ON TOOTH ENAMEL AFTER INTERPROXIMAL ENAMEL REDUCTION: IN VITRO STUDY
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SP343  MANDIBULAR THIRD MOLARS TEETH AND THEIR INFLUENCE ON LATE MANDIBULAR INCISOR CROWDING: LONGITUDINAL STUDY
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SP345  EFFECTS OF PREMOLAR EXTRACTIONS ON OVERALL BOLTON RATIO
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SP346  PREVALENCE OF MALOCCLUSION AND TEMPOROMANDIBULAR DISORDERS IN ITALIAN SCHOOL CHILDREN
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SP349  INVESTIGATION OF THE CHANGES OF TITANIUM–NIOBIUM ARCHWIRES AFTER INTRAORAL APPLICATION
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SP350  ASSESSMENT OF THE MAGNITUDE OF FORCE FOR INTRUSION OF MAXILLARY FIRST MOLAR TEETH: A FINITE ELEMENT ANALYSIS
Phanisa Pheerawanitchaku1, Virush Patanaporn1, Chaiy Rungsiyakull2, Departments of 1Orthodontics and Pediatric Dentistry and 2Mechanical Engineering, Chiang Mai University, Thailand

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SP352  INDICATIONS, APPLICATION AND ARMAMENTARIUM FOR INTERPROXIMAL ENAMEL REDUCTION IN CONTEMPORARY ORTHODONTICS
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SP353  MORPHOFUNCTIONAL CHANGES IN THE DENTOALVEOLAR COMPLEX, DUE TO THE EXISTENCE OF BITE PLATES ON THE LINGUAL BRACKETS SURFACE
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SP355 THERMOGRAPHY OF THE FACE BEFORE AND AFTER ORTHODONTIC TREATMENT OF CLASS III MALOCCLUSIONS USING THE POSTNIKOV DEVICES

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SP356 ADVANTAGES AND DISADVANTAGES OF ORTHODONTIC TREATMENT WITH CLEAR ALIGNERS VERSUS FIXED ORTHODONTIC MULTIBRACKETS: A LITERATURE REVIEW

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SP357 ANOMALIES IN TOOTH NUMBER OF THE PERMANENT DENTITION IN THREE ASIAN ETHNICITIES

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SP358 INDIVIDUAL AND SOCIAL MOTIVATION OF THE DECISION FOR ORTHODONTIC TREATMENT. COMPARISON BETWEEN POLISH AND CROATIAN PATIENTS

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SP359 OCCLUSAL CHARACTERISTICS REFLECTING PREVENTIVE AND INTERCEPTIVE ORTHODONTIC TREATMENT NEED IN CHILDREN AGED 8-9 YEARS IN A RURAL AREA OF THAILAND

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SP360 CYTOTOXICITY AND OESTROGENICITY OF CLEAR RETAINERS

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SP361 THE EFFECT OF SURGICAL EXPERIENCE ON MAXILLARY GROWTH AND OCCLUSION IN UNILATERAL CLEFT LIP AND PALATE PRIMARY SURGERY

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SP362 GENETIC POLYMORPHISMS OF AXIN2 (SNP rs 7591 AND rs 7224837) GENE VARIANTS IN NON-SYNDROMIC CLEFT LIP/PALATE IN A LOCAL POPULATION

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SP363 BIOMECHANICAL ANALYSIS OF PERIODONTALLY REDUCED MOLARS IN ANCHORING UNITS USING CLINICAL DATA
SP364 EVALUATION OF THE CHANGES OF PERIORAL SOFT TISSUE AND LIPS BEFORE AND AFTER BRACKET REMOVAL

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SP365 THE PREVALENCE OF IMPACTED TEETH IN THE SKOPJE REGION OF MACEDONIA – A RETROSPECTIVE STUDY

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SP366 ORTHODONTIC BRACKETS AND ELASTICS AS A METHOD OF INTERMAXILLARY FIXATION IN SUITABLE MANDIBLE FRACTURES – A FINANCIAL CASE

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SP367 AUDIT OF PATIENT SATISFACTION WITH SPACE CLOSURE OR SPACE OPENING IN MANAGING BILATERAL MISSING UPPER LATERAL INCISORS

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SP368 SELF-PERCEPTION AND NORMATIVE ASSESSMENT OF MALOCCLUSION IN AN INDIGENOUS POPULATION

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SP369 ASSESSMENT OF READINESS TO CHANGE ORAL HYGIENE BEHAVIOUR IN ADOLESCENTS WEARING FIXED APPLIANCES

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SP370 CORRELATION OF THE SINGLE NUCLEOTIDE POLYMORPHISMS OF FGFR1 AND FGFR10 WITH NON-SYNDROMIC CLEFT LIP WITH OR WITHOUT CLEFT PALATE

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SP371 POPULATION ANALYSIS OF CLEFT LIP AND/OR PALATE PATIENTS TREATED IN THE POSTGRADUATE ORTHODONTIC DEPARTMENT

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SP372 EFFECTS OF SURGICALLY ASSISTED RAPID PALATAL EXPANSION ON FACIAL SOFT TISSUES. A SYSTEMATIC REVIEW

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SP373 A RETROSPECTIVE ANALYSIS OF TREATMENT DECISIONS RELATING TO THE MANAGEMENT OF UNERUPTED TEETH IN ADULTS

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SP374 EFFECTS OF FACEMASK AND SKELETAL ANCHORAGE THERAPY FOR THE TREATMENT OF SKELETAL CLASS III MALOCCLUSIONS
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SP375 MAGNITUDE OF FORCE FOR THE INTRUSION OF SIX MAXILLARY ANTERIOR TEETH USING TWO MINISCREW ANCHORAGE: A FINITE ELEMENT METHOD
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SP376 TREATMENT OUTCOMES OF IMPACTED MAXILLARY CANINES AFTER DIFFERENT SURGICAL EXPOSURES. A SYSTEMATIC REVIEW
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SP377 DENTAL ARCH DEVELOPMENT AFTER ADENOIDECTOMY AND TONSILLECTOMY IN PREPUBERAL CHILDREN: A SYSTEMATIC REVIEW
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SP378 SKELETAL, DENTAL AND SOFT TISSUE DIFFERENCES BETWEEN CHINESE AND CAUCASIAN ORTHODONTIC PATIENTS: A SYSTEMATIC REVIEW
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SP379 PREDICTORS OF POST-RETENTION STABILITY OF MANDIBULAR DENTAL ARCH DIMENSIONS IN PATIENTS TREATED WITH A LIP BUMPER FOLLOWED BY FIXED APPLIANCES
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SP380 COMBINED ORTHODONTIC AND SURGICAL TREATMENT OF MANDIBULAR PROGNATHISM. THE PATIENTS’ EVALUATION 10-15 YEARS AFTER TREATMENT
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SP381 TRANSFER ACCURACY OF TWO INDIRECT BONDING TECHNIQUES – AN IN VITRO STUDY WITH THREE-DIMENSIONAL SCANNED MODELS
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SP382 ACCURACY OF CONE BEAM COMPUTED TOMOGRAPHY IN PERIODONTAL BONE MEASUREMENTS FOR ORTHODONTIC TREATMENT PLANNING
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SP383 CLOSING THE GAP FOR CHILDREN WITH PROMINENT ANTERIOR TEETH
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SP384 ORTHODONTIC TREATMENT PROVIDED BY GENERAL DENTAL CLINICS AND ORTHODONTIC SPECIALIST CLINICS IN THE SWEDISH COUNTY OF JÖNKÖPING AND KALMAR
SP385 ANALYSIS OF THE INFLUENCE OF MEANS FOR HYGIENE OF THE ORAL CAVITY OF ONCOLOGICAL ORTHODONTIC PATIENTS
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SP386 IS THE SANDBLASTING PROCEDURE WITH ALUMINIUM DIOXIDE IN LINGUAL ORTHODONTICS AT THE EXPENSE OF PREVENTION?
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SP387 COMPARISONS OF TWO PROTOCOLS FOR EARLY TREATMENT OF AN ANTERIOR OPEN BITE
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SP388 ANALYSIS OF CHANGES IN HUMAN PERIODONTAL LIGAMENT STEAM CELLS AND DENTAL PULP STEM CELLS BY LOW LEVEL LASER THERAPY: A REVIEW AND NEW PERSPECTIVES
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SP389 THREE-YEAR UNITED KINGDOM AND SWEDISH ORTHODONTIC TRAINING PROGRAMMES, WHOM DID WE TREAT?
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SP390 AN AUDIT TO ASSESS THE APPROPRIATENESS OF ORTHODONTIC SECONDARY CARE REFERRALS WITH RESPECT TO THE COMMISSIONING GUIDELINES COMPLEXITY LEVELS
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SP391 PREVALENCE OF TOOTH AGENESIS, SUPERNUMERARIES AND IMPACTION IN CHILDREN WITH VARIOUS TYPES OF CLEFTS
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SP392 THE EFFECT OF THE TWIN BLOCK AND R-APPLIANCE IN THE TREATMENT OF MANDIBULAR DEFICIENCY
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SP393 OPTIMAL TIMING OF EXTRACTION OF MANDIBULAR FIRST MOLARS
Payal Sharma Birch, Helen M Liversidge, Institute of Dentistry, Queen Mary University of London, London, U.K.
SP394  BRAIN ACTIVATION DURING A WORKING MEMORY TEST WITH MOUTH BREATHING OR NASAL BREATHING
Tateshi Shimazaki, Takero Otsuka, Takashi Usui, Toshitsugu Kawata, Orthodontic Division, Department of Oral Interdisciplinary Medicine, Kanagawa Dental University, Yokosuka, Japan

SP395  THE EFFECTS OF A TONGUE PLATE VERSUS FACEMASK ON THE NASOMAXILLARY COMPLEX OF PATIENTS WITH A UNILATERAL CLEFT LIP AND PALATE
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SP396  COMPARISON OF THE PERCEPTION OF METAL BRACKETS AND CLEAR ALIGNERS IN YOUNG ADULTS
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SP397  ORTHOGNATHIC SURGERY AUDIT AND SERVICE EVALUATION
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SP398  SHEAR BOND STRENGTH OF METAL ORTHODONTIC BRACKETS TO DENTAL BASE ALLOY SURFACES: AN IN VITRO STUDY
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SP399  EFFECT OF METAL PRIMERS AND SURFACE PREPARATION METHODS ON SHEAR BOND STRENGTH OF METAL ORTHODONTIC BRACKETS TO SILVER-PALLADIUM BASE ALLOY SURFACES
Thanyabhorn Sittajarnpong, Supassara Sirabanchongkran, Department of Orthodontics and Pediatric Dentistry, Chiangmai University, Muang, Thailand

SP400  FEATURES OF ORTHODONTIC TREATMENT IN GIRLS WITH TEMPOROMANDIBULAR DYSFUNCTION AND DELAYED SEXUAL DEVELOPMENT AT PUBERTAL AGE
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SP401  WILLINGNESS TO PAY FOR ORTHODONTIC TREATMENT. DOES AN INCREASED OVERJET OR DENTAL CROWDING HAVE A GREATER INFLUENCE ON THE WILLINGNESS TO PAY VALUE?
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SP402  ALAR BASE WIDTH CHANGES FOLLOWING LE FORT 1 OSTEOTOMIES
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SP403  EVALUATION OF SHEAR BOND STRENGTH OF MOLAR TUBES BONDED TO AMALGAM WITH DIFFERENT SURFACE TREATMENT PROCEDURES AND DIFFERENT ADHESIVES
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SP404  ASSESSMENT OF THE ROOT APEX POSITION OF IMPACTED MAXILLARY CANINES ON PANORAMIC FILMS
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SP405  COMPARISON OF THE ROOT APEX AND CROWN TIP ARCH-FORMS BETWEEN NON-CROWDED AND CROWDED CASES
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SP406  FACIAL DIVERGENCE AND ANTERIOR TOOTH SIZE: A TRANSVERSAL STUDY
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SP407  EVALUATION OF A FLUORESCENCE-AIDED IDENTIFICATION TECHNIQUE TO AID BRACKET DEBONDING
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SP408  AESTHETIC PERCEPTION OF THE VERTICAL POSITION OF THE INCISAL EDGES OF THE MAXILLARY LATERAL INCISORS IN THE SMILE ARC
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SP409  HARD AND SOFT TISSUE CHANGES AFTER MANDIBULAR ADVANCEMENT SURGERY IN CLASS II PATIENTS: A RETROSPECTIVE CEPHALOMETRIC STUDY
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SP410  ANALYSIS OF TREATMENT EFFECTS OF PRE-SURGICAL INFANTORTHOPAEDICS IN COMPLETE NON-SYNDROMIC UNILATERAL CLEFT LIP, ALVEOLUS AND PALATE
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SP411  TEMPORARY ANCHORAGE DEVICES IN CONTEMPORARY ORTHODONTICS – A LITERATURE REVIEW
Raluca Suhani, Mihai Suhani, Alexandrina Muntean, Grigore Baciu, University of Dental Medicine Cluj Napoca, Romania

SP412  ARE THERE ANY ANTERIOR BOLTON TOOTH SIZE DISCREPANCIES IN CLASS III SURGICAL CASES?
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SP413  THE IMPACT OF THE ATTACHMENT BONDING PROTOCOL ON ALIGNER FITTING AND SUBSEQUENT TREATMENT ACCURACY
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SP414  ASSESSMENT OF ROOT SURFACE AREAS OF MAXILLARY PERMANENT TEETH IN THAI PATIENTS EXHIBITING AN ANTERIOR OPEN BITE USING CONE-BEAM COMPUTED TOMOGRAPHY
Piyadanai Suteerapongpun, Dhirawat Jotikasthira, Tanapan Wattanachai, Department of Orthodontics and Pediatric Dentistry, Chiang Mai University, Thailand

SP415  ASSESSMENT OF PALATAL BONE THICKNESS IN THAI PATIENTS WITH NORMAL SKELETAL RELATIONSHIP USING CONE-BEAM COMPUTED TOMOGRAPHY
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SP416 CURCUMIN INHIBITS TUMOUR NECROSIS FACTOR-Α INDUCED CYCLOOXYGENASE-2 EXPRESSION AND PROSTAGLANDIN E2 SYNTHESIS IN BONE MARROW STROMAL CELLS
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SP417 THE MAXILLARY POSTERIOR ANATOMICAL LIMIT FOR MOLAR DISTALIZATION
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SP418 EVALUATION OF THE LATERALITY OF MASTICATORY MUSCLE TISSUE OXYGEN SATURATION IN SUBJECTS WITH FACIAL ASYMMETRY
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SP419 COMPARISON OF TWO INTRAORAL MOLAR DISTALIZATION APPLIANCES
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SP420 CORRELATION BETWEEN LOWER THIRD MOLARS AND MANDIBULAR INCISOR CROWDING
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SP421 GENDER DISCREPANCIES BETWEEN OLIGODONTIC PATIENTS
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SP422 STATISTICAL EVALUATION OF CEPHALOMETRIC NORMS IN CLASS III PATIENTS FROM WESTERN ROMANIAN
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SP423 TREATMENT EFFECT IN THE TRANSITIONAL DENTITION USING A PERSONAL ACTIVATOR FOR DISTAL OCCLUSION AND DEEP BITE
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SP424 ASSESSMENT OF CHONDROITIN SULPHATE LEVELS AROUND MAXILLARY FIRST MOLARS BETWEEN TWO TREATMENT MODALITIES DURING POSTERIOR TOOTH INTRUSION
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SP425 SIGNS AND SYMPTOMS OF TEMPOROMANDIBULAR DISORDERS IN ITALIAN ADOLESCENTS
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SP426 THE MANDIBULAR CONDYLE DURING GROWTH: A THREE-DIMENSIONAL VOLUMETRIC ANALYSIS OF 11, 17, 24 YEAR OLD SUBJECTS
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SP427 THE PREVALENCE OF DENTOALVEOLAR BONE DEHISCENCES IN CORRELATION WITH MALOCCLUSIONS
SP428 BITE FORCE, OCCLUSAL CONTACTS, HEAD POSTURE, PAIN AND MUSCLE TENDERNESS IN ORTHODONTIC PATIENTS BEFORE, DURING AND AFTER FIXED APPLIANCE TREATMENT
Nicoline Therkildsen, Liselotte Sonnesen, University of Copenhagen, Denmark

SP429 EFFECT OF ULTRASONIC IMMERSION ON FLEXURAL PROPERTIES OF A METHYL METHACRYLATE-BASED ORTHODONTIC BASE-PLATE MATERIAL
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SP430 THE COURSE OF THE NASOPALATINE CANAL: A STUDY USING CONE BEAM COMPUTED TOMOGRAPHY
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SP431 ASSOCIATION BETWEEN INTERCLINOID LIGAMENT CALCIFICATION AND TOOTH AGENESIS IN BOSNIAN ORTHODONTIC PATIENTS
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SP432 FACIAL ASYMMETRY IN ORTHOGNATHIC PATIENTS
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SP433 EVALUATION OF AN AESTHETIC SMILE
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SP434 COMPARISON OF QUALITY OF LIFE IN PATIENTS WITH AND WITHOUT A DENTOFACIAL DEFORMITY
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SP435 CONDYLAR ASYMMETRY IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS: COULD IT BE A SIGN OF POSSIBLE TEMPOROMANDIBULAR JOINT INVOLVEMENT?
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SP436 THE ACCURACY OF SOFT TISSUE PREDICTION USING THREE-DIMENSIONAL SIMULATION SOFTWARE FOR PLANNING ORTHOGNATHIC SURGERY
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SP437 THE INFLUENCE OF HERITABILITY ON THE FORMATION OF THE THIRD MOLARS
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SP438 THE TENSILE BOND STRENGTH CHANGES WITH METAL BRACKETS AFTER TOOTH BLEACHING
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SP439  CHANGES IN UPPER AIRWAY WIDTH IN PATIENTS WITH MILD OBSTRUCTIVE SLEEP APNOEA USING MAGNETIC MANDIBULAR ADVANCEMENT
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SP440  BUCCAL CORTICAL BONE THICKNESS AT THE INFRAZYGMOMATIC CREST SITE IN THAI GROWING UNILATERAL CLEFT LIP AND PALATE PATIENTS
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SP441  PREVALENCE OF IMPACTED THIRD MOLARS IN ADULTS
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SP442  PRE-TREATMENT STATE ANXIETY IN ORTHODONTIC PATIENTS: SAMPLE OF A UNIVERSITY HOSPITAL
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SP443  ACCELERATED TOOTH MOVEMENT: CORTICOMTOMIES VERSUS MICROOSTEOPERFORATIONS
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SP444  COMPARISON OF THE PATIENT PATHWAY BETWEEN SURGERY FIRST AND CONVENTIONAL ORTHOGNATHIC CASES
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SP445  EVALUATION OF AUTOROTATION OF MANDIBLE AFTER LE FORT 1 MAXILLARY IMPACTION
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SP446  EVALUATION OF MANDIBULAR DENTAL ARCH FORMS FOR DIFFERENT CLASSES OF MALOCCLUSION IN TURKISH SUBJECTS: A PILOT STUDY
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SP448  ASSOCIATION BETWEEN CARABELLI CUSP AND SHOVEL INCISORS: PREVALENCE IN ORTHODONTICS PATIENTS AT SAN RAFAEL HOSPITAL IN MADRID
Carlota Vázquez Aller, Beatriz Ruiz de Huidobro Lloret, Ana Belén Macías Gago, Iván Nieto Sánchez, Laura Aneiros Fernández, Department of Dentistry, Nebrija University-San Rafael Hospital, Madrid, Spain

SP449  UNIVERSITY ORTHODONTIC CARE – CHANGES OF PATIENT CHARACTERISTICS, TREATMENT QUALITY AND TREATMENT COSTS OVER A PERIOD OF 20 YEARS
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SP450  PRELIMINARY RESULTS OF THE SURVIVAL RATE OF MINIPLATES AND MINISCREWS USED AS ANCHORAGE IN ORTHODONTIC TREATMENTS
**SP451** EFFECTS OF RAPID MAXILLARY EXPANSION ON PALATALLY DISPLACED CANINES IN PATIENTS WITH A MAXILLARY TRANSVERSE DEFICIENCY
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**SP452** AN ASSESSMENT OF THE RESULTS IN EARLY/LATE THERAPY OF CLASS III MALOCCLUSION
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**SP453** THREE-DIMENSIONAL ANALYSIS OF THE EFFECTS OF SKELETALLY ANCHORED MESIALISATION IN THE MAXILLA
Benedict Wilmes, Kathrin Becker, Chantal Grandjean, Dieter Drescher, University of Duesseldorf, Germany

**SP454** DENTOALVEOLAR CHANGES AFTER USING A NASOALVEOLAR MOULDING DEVICE IN UNILATERAL COMPLETE CLEFT LIP AND PALATE PATIENTS
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**SP455** TRANSFECTION OF NUCLEAR FACTOR-KAPPA B DECOY INTO THE RODENT PERIODONTIUM USING ULTRASOUND-MICROBUBBLE TECHNIQUE PREVENTS PROGRESSION OF PERIODONTITIS
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**SP456** BUCCALLY IMPACTED MAXILLARY CANINES INCREASE THE LIKELIHOOD OF ROOT SEPARATION IN ADJACENT FIRST PREMOLARS
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**SP457** THE CORROSION BETWEEN METAL ORTHODONTIC BRACKETS AND DIFFERENT TYPES OF ARCH WIRES CAUSED BY FLUORIDE PRODUCTS
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**SP458** COMPARISON OF ANCHORAGE LOSS BETWEEN THE 0.018- AND 0.022-INCH SLOT BRACKET SYSTEMS
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**SP459** ASSESSMENT OF RELIABILITY OF AN ORTHODONTIC APPLICATION FOR CEPHALOMETRICS
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**SP460** CORRELATION BETWEEN IMPACTED UPPER SECOND PREMOLARS AND CANINES AND THEIR TREATMENT PROTOCOL
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**SP461** FREQUENCY OF IMPACTION OF DIFFERENT TEETH GROUPS
SP462 INCREASED FRICTION FOLLOWING THE PROGRESS OF SPACE CLOSURE IN SLIDING MECHANICS: A TIME-DEPENDENT FINITE ELEMENT ANALYSIS FOR LONG-TERM TOOTH MOVEMENT

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SP463 EVALUATION OF OUTCOMES OF CONTINUING PROFESSIONAL EDUCATION IN ORTHODONTICS

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SP464 IN VIVO COLOUR EVALUATION OF CLEAR THERMOPLASTIC RETAINERS

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SP465 ORTHODONTIC TREATMENT OF CHILDREN WITH A BILATERAL CLEFT LIP AND PALATE USING MICRO-IMPLANTS

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SP466 INFLUENCE OF REAL BUCCOLINGUAL INCLINATION OF FIRST AND SECOND PREMOLARS ON PANORAMIC MESIODISTAL ANGULATION MEASUREMENT

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SP467 BONE SAFE ORTHODONTIC SET-UP

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SP468 CRANIAL-BASE AND MAXILLOMANDIBULAR MORPHOLOGY IN ADULTS WITH A SKELETAL CLASS II MALOCCLUSION

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