| SPEAKER | TITLE |
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| Dr O.P. Kharbanda Chief CDER AIIMS, New Delhi | The invasion of 3D digital Orthodontics: What is my take? |

Abstract

Aggressive invasion of three D surface and low dose radiation imaging technology and possibilities of in-house 3 printing technology has created new age orthodontic office. The sophistication of advanced software functions allow 3D manipulation of occlusion, choose tooth movements and foresee multiple treatment options to decide best occlusion before hand. The possibility of integration with CBCT and non radiation surface scanning allows the orthodontist and patient foresee treatment outcome. This presentation will cover A to Z of 3D digital technology for the benefits of the Postgraduates and practising orthodontists.

A special highlight will be speakers experience with this technology and tips for the clinicians and researchers.

| SPEAKER | TITLE | | |
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| Dr Reena R Kumar | Let's Get Airway | Centric in | Orthodontic |
| Prof & Head, Principle D J Dental | Diagnosis | | |
| College | | | |
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As any health care professionals, we as orthodontists are duty bound to improve the quality of life of our patients and above all follow the ethical guidelines of *Do No Harm* to the patient. The boundaries of orthodontic management has expanded enormously with technological advancements and better understanding of mechanics through harnessing biology. The primary function of the stomatognathic system is maintaining proper form through optimum function as form and function are closely interlinked. Orthodontists are well versed in understanding the nuances of growth and development and adept at assessment of skeletal structures and functional spaces like the airway and tongue posture and size though Cephalometric.

As orthodontists we may come across numerous potential and frank cases of sleep related breathing disorders with Obstructive Sleep Apnea Syndrome being very prevalent and pertinent to our profession .Quality of Life in patients with Obstructive Sleep Apnea Syndrome is negatively impacted as OSAS is well recognized as a major cause of morbidity and mortality in both the developed and developing world as it is associated with a wide range of medical consequences like hypertension, cardiovascular diseases, metabolic syndrome and psychological effects. Sleepiness, depression, fatigue and obesity have an important impact on quality of life. Patients report problems in their social, professional and sexual relationships. One of the most important complications of OSAHS which has the greatest impact from the public health perspective is high risk to driving and workplace accidents. Low work output, poor cognitive skills and lack of concentration has an effect on National productivity and economy. The burden of disease leads to high expenses on health.

It is important to understand that the orthodontist is in a very apt position to screen/ diagnose / help manage and even potentially prevent OSA as the spectrum of orthodontic patients range from adults to adolescents to children. The disease manifestations of OSA encompass all age groups with different clinical presentation. In current day the contemporary orthodontist must be comfortable to work in a team with medical professionals and has a potential to expand orthodontic practice into sleep medicine

This presentation will dwell on enlightening the role of an orthodontists to be able to base our diagnosis on the very important function of the stomatognathic system, namely Respiration with an objective to discuss risk factors and the role of the orthodontist in picking up the tell tale signs and symptoms by including a few simple questions in the clinical history and extending the clinical exam beyond the Teeth & Gums. Early attention to modifiable risk factors and screening for intervention with referral and simple management modalities can save many lives and create better quality of life and productivity of the nation.

| SPEAKER | TITLE |
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| Dr.Ritu Duggal Prof CDER AIIMS, New Delhi | Fixed class II correctors- why and when? |

The orthodontic profession is challenged with treatment of malocclusions whilst achieving treatment outcomes such as pleasant facial profile, healthy periodontium, proper position of condyles in glenoid fossa and an acceptable occlusion. Most commonly observed Class II malocclusion may be attributed to mandibular skeletal retrusion, which is the most characteristic feature. The treatment options for the correction of Class II malocclusion in growing age include early phase of functional appliance with growth modification followed by fixed orthodontic treatment for the dental corrections. In adult patient, the options for Class II correction include camouflage or surgical orthodontics.

The fixed functional appliances (FFAs) help in correction of Class II malocclusions in the fag end of growth period and are specifically advantageous as they require less patient co-operation and allow simultaneous fixed orthodontic mechanotherapy, thus reducing treatment duration. Also known as compliance-free Class II correctors, many types of FFAs have been developed and are commonly used like Herbst appliance, Forsus, Jasper Jumper, Twin force bite corrector etc. Amongst the many factors essential to the success of functional appliance therapy, the most important one remains a thorough diagnosis of the underlying problem and assessment of growth parameters and patient compliance.

In this presentation, cases representing the various scenarios encountered in day to day orthodontic practice are discussed with emphasis on the identification of problem areas- dental/skeletal, complete work up and ultimately formulating the most suitable treatment plan with fixed functional appliances.Recent advancement wherein skeletal anchorage (use of miniplates) has been used in conjunction with FFAs in patients has also been addressed.

| SPEAKER | TITLE |
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| Dr. S.P Singh | Ortho-surgical management of severe skeletal |
| Prof & Head PGI Chandigarh | Class III malocclusion in adult patients |

From the past decades, a tremendous increase in the adult patients seeking orthodontic treatment has been found from 15.4% to 23%. However, it is just not the number of adults, who are seeking treatment, but also, the requirement of interdisciplinary approach because of associated complexities viz. ageing of dentition, periodontal problems and skeletal malocclusion, are of critical importance. One such malocclusion frequently encountered is skeletal Class III malocclusion. The management of this kind of dento-facial skeletal anomalies is accomplished by a multi-disciplinary team based on close collaboration between surgeon and orthodontist. Prior to any bony correction with Orthognathic surgery, the orthodontic decompensation of overlying dentition is must, to reflect the actual jaw discrepancy. This presentation shall be a showcase of adult patient with skeletal Class III malocclusion who were managed with Orthognathic surgery that included both Bilateral Sagittal Split Osteotomy, Lefort I maxillary advancement and Distraction Osteogenesis of maxilla with RED device.

| SPEAKER | TITLE |
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| Dr MS Sidhu Prof & Head SGT Dental College , Gurgaon | Challenges in orthodontic diagnosis |

ABSTRACT:

Diagnosis in Orthodontics, as in other disciplines of dentistry and medicine requires collection of an adequate database of information about the patient's problem. It is important to recognise that both the patient's perceptions and doctor's observations are needed in formulating the problem list. For achieving this facial aesthetics along with structural and functional balance, a disciplined approach in record taking and diagnosis as well as careful monitoring of progress of treatment is necessary. The essentials for orthodontic records are a diagnostic chart supported by study models, radiographs and photographs to establish the condition of the case before treatment. The problem oriented dental records significantly aid in making the appropriate diagnosis. The orthodontist's job is to fit the pieces of human craniofacial complex puzzle together. The expected outcome of this endeavour is a harmonious rearrangement that is not only functional but also aesthetically pleasing. This process must take into account the relationships in all three spatial axes. Since orthodontic treatment affects all the three dimensions, the diagnostic tools must also employ 3D representations of the patient. The key to treatment planning should be contained in diagnosis with specific observations that may influence the more detailed considerations to design the most effective mechanotherapy.

| SPEAKER | TITLE |
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| Dr.Sridhar Premkumar | THEUNKNOWNANDTHEKNOWN-Hidden aspects of craniofacial growth in clinical |
| Professor, Tamilnadu Government Dental College and Hospital, Chennai | orthodontics |

ABSTRACT:

Craniofacial development and dental malocclusion reflect an interplay between a number of factors, including tooth size, arch size and shape, the number and arrangement of teeth, size and relationship of the jaws, and related soft tissues including lips, cheeks, and tongue. Diagnosis and treatment planning of an orthodontic patient must, therefore, include application of knowledge in craniofacial growth and dental development. This presentation elaborates on the hidden concepts and contributions of growth and development in clinical orthodontics

| | SPEAKER | TITLE |
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| | Dr.Sridevi | Asymmetry –Diagnosis and Managment |
| | Padmanabhan | |
| | Prof.& HOD, Faculty of Dental | |
| | Sciences,SRMC,Chennai | |
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ABSTRACT:

While Diagnosis and treatment planning in Orthodontics usually does focus on the sagittal and the vertical dimension, the transverse usually trails behind unless the problem is primarily transverse. The transverse dimension is the first to complete growth but is nevertheless very important in the role it plays in normal growth of the jaws in other dimensions also.

Symmetry and balance is essential for esthetics and function. The data on transverse dimensions and priority given in routine diagnostic protocol is much less and this presentation will present an overview of diagnosis of transverse problems and criteria for selection of treatment protocols with clinical examples.

| SPEAKER | TITLE |
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| Dr. Pradeep Raghav | TAD'S - EXPANDING THE HORIZON BY |
| Prof &Head Subharti | ACHIEVING THE UNACHIEVABLE |
| Dental College Meerut | |
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ABSTRACT:

In the recent times, the usage of mini implants has become ubiquitous and common in orthodontic practice. The use of TADs not only provides solution to anchorage loss but also allows tooth movements which were previously not possible. It can be used to achieve and control tooth movement in all 3 planes of space thereby increasing the envelope of discrepancy by manifolds. Newer forms of implants such as the Infrazygomatic, crestal and Buccal shelf screws can be used to achieve movement which earlier required a surgical intervention. Lot of cases which required us to work in tandem with an oral surgeon can now simply be treated without any patient discomfort being an added advantage.

Thus the advent of mini implants, has given a solution to many of the dilemma face by orthodontists and has revolutionized the practice of orthodontics in today's scenario.

This presentation showcases some of theorthodontic cases which were initially planned for surgical treatment but which were efficiently treated with TAD assisted orthodontic treatment.

| SPEAKER | ŗ | FITLE |
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| Dr Gurkeerat Singh | Contemporary | |
| Prof & Head & Vice | Appliances | |
| Principle Sudha Rustagi | | |
| Dental College, | | |
| Faridabad | | |
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| Principle Sudha Rustagi Dental College, Faridabad | | |

| SPEAKER | TITLE |
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| Dr. Anup Kanase | Lazers – <u>the current trend for accelerated</u> |
| Prof M.A.I.D.S New Delhi | <u>Orthodontics</u> |
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ABSTRACT:

The discovery of lasers in 1960s paved the way for a paradigm shift in the field of medicine and dentistry in the years to come as the researchers realized that laser therapy had potential for reducing pain, inflammation and swelling as well as improving wound healing. This field has broadened over the years to include photobiomodulation and light-emitting diodes and other light sources. Photobiomodulation or low level laser therapy (LLLT) uses the laser energy which is absorbed by inter and intra cellular targets, generating significant cellular and biological responses in the body without yielding any direct thermal effects in the area of application. Currently, the commonly used lasers include both the hard tissue (CO₂, Nd: YAG, Erbium (Er:YAG and Er,Cr: YSGG)and the soft tissue (diode laser). Thus, photobiomodulation serves as a desirable and an inseparable alternative for accelerated tooth movement to many traditional surgical procedures in orthodontics. The field of orthodontics generally uses a diode laser as it is portable, cost effective and easy to operate.

The most commonly encountered problems with fixed orthodontic treatment i.e. pain and long treatment duration have been relieved by using photobiomodulation. However, the exact protocol of application to achieve the desired effects is variable and inconclusive. The presentation will cover the aspects of the effectiveness of lasers on pain and tooth movement and give a insight so as to improve the patient's comfort and compliance as well as possibly reduce the treatment time.

| SPEAKER | TITLE |
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| Dr Puneet Batra Prof & Head, Vice Principle IDST, Modinagar | Bonding in orthodontics |

ABSTRACT:

It was said in the earlier of days of Orthodontics, that the best ones would be those who could the bend the most precisely and accurately. However, as appliances evolved toward the 'Straight Wire' concept, the best orthodontists now would be the ones who could bond the bracket with maximum precision and accuracy. In both scenarios, the necessary adjustments were always in accordance to the presenting clinical situation with the final outcome in mind especially in today's detailed attention towards macro and micro aesthetics. If planned properly, no two patients should and would have the same bonding requirements, obviously there cannot be a single cookbook approach to be followed. This problem based learning presentation focuses on case by case scenarios and the adjustment to bracket bonding required as such.

| SPEAKER | TITLE |
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| Dr.K.S. Negi Prof.Govt.Dental college, Shimla | Transferred Cases - An Asset of Learning Orthodontics |

ABSTRACT:

Transferred cases in Orthodontics are really a big challenge to all resident doctors as well as supervisors. Same time it is an asset for trainee orthodontist to learn how to finish the case if it is in finishing stage or how to bring the spoiled case into normal track with suitable biomechanics and also to learn about patient management. But unfortunately most of the transferred cases are being neglected with many reasons. As per the DCI norms every resident have to start 50 new cases besides the bulk of transferred cases which will be difficult to manage properly. Major problems faced in transferred cases are availability of records which is incomplete in most of the cases and patient is reluctant to continue with new doctor. This presentation will highlight the importance of transferred cases in learning Orthodontics.

| SPEAKER | | TI | ГLE | | |
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| Dr Anand K Patil Prof & HOD SDM College of Dental Sciences Dharwad | Advances in movement | Biology | of | Orthodontic | tooth |

ABSTRACT:

The presentation highlights the present day understanding of molecular and genetic biology of Orthodontic tooth movement. How far we have come in understanding the complexities of the orthodontic force and it's reactions. Can the present knowledge will help us to accelerate or reduce the overall treatment time to aid ultimately the clinic practice ? Will be attempted to answer in the presentation

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ABSTRACT:

Deeper understanding of lingual biomechanics is prerequisite for success with lingual appliance. The difference between labial and lingual force system must be understood and kept in mind during treatment planning, specially anchorage planning and extraction decision making. this presentation will explain Lingual force system in details, its desirable and undesirable effects. will showcase clinical case with problem in every stage and their solution.

| SPEAKER | TITLE |
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| | Dr. Aravind Kumar | An insight into the Morth examinations |
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| | Prof and Head | |
| | academics, | |
| 0 | Vice Principal, | |
| | Saveetha Dental College | |
| | Chennai | |
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ABSTRACT:

The presentation will highlight on the M Ortho examinations conducted by the Royal College of Surgeons of Glasgow. This presentation will give an insight into the eligibility criteria, examination formats and on how to prepare for the exam. The exam pattern will be discussed in detail throwing light on the written and OSCE components. Materials for the written component will be explored and sample question formats will be discussed. The presentation will also highlight on the case selection criteria, treatment mechanics and the rationale behind it and on how to prepare the case format. Preparation tips for the unseen cases will be provided and list of study materials for the examination will be discussed in detail. Sample cases will be presented to give the students a better understanding of what is expected from the examiners. Important topics related to the communication and OSCE will be highlighted and explained in detail

| SPEAKER | TITLE |
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| Dr Deepak Gupta Prof.and Head H.S.Judge Denatl College Chandigarh | Interdisciplinary Orthodontics |

ABSTRACT:

Recent years has seen an unprecedented increase in adults seeking for orthodontic treatment. Adult patients generally presents with compromised dentition like abrasion, periodontal breakdown, failed restorations, carious teeth, missing teeth due to previous extractions and severe jaw discrepancies. These can be taken care only with healthy amalgamation of various disciplines of dentistry. This has necessitated the change in practice of orthodontics

from single specialist to the team approach or Interdisciplinary Orthodontics. This is in contrast to earlier times when orthodontists would solely treat the growing adolescent patients which hardly required any intervention from the other disciplines as their dentition would be relatively new and healthy. The simplest example of interdisciplinary orthodontics can be the necessity of Oral surgeons for atraumatic orthodontic extraction and further requirement of and non compression of extraction socket so as to facilitate tooth movement in extraction space. Therefore, Interdisciplinary treatment approach involves utilization of various skills and expertise of specialists from various fields of dentistry, so as to benefit both patients and operator in improving the prognosis of the treatment and enhancing the results of overall treatment

| SPEAKER | TITLE |
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| Dr. Vinay Chugh Associate Prof,AIIMS,Jodhpur | Class III malocclusion: Accept the Challenge |

ABSTRACT:

Class III malocclusion continue to be one of the most challenging malocclusion faced by orthodontic clinicians. Treatment may start as early as in deciduous dentition or early mixed dentition depending on the severity of malocclusion. Skeletal Class III caused mainly due to retrusive maxilla is amenable to face mask therapy at an early age. With the recent advent of bone anchored maxillary protraction (BAMP) the need for face mask therapy has now been reduced considerably. Nevertheless, the morbidity associated with a surgical procedure is one main drawback of BAMP protocol. Treatment in permanent dentition in young adolescents is usually limited to camouflage if the malocclusion is of mild to moderate magnitude. Adult patients with moderate to severe malocclusion are further complexed by three dimensional involvements and can usually be only managed with combined surgical orthodontics. This presentation highlights the diagnosis and treatment of Class III malocclusion in different age groups.

| SPEAKER | TITLE |
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| Dr.Vaibhav Misra Former professor & head Teerthanker mahaveer university | Orthodontist: the journey beyond |

ABSTRACT:

In today's world the art & science of orthodontics as well as dentistry is changing at a very fast pace and so are the avenues of practice. With the coming up of digital and customized orthodontics.

The practice of orthodontics has drastically changed with the entry of cooperates in dental care, also the availability of different modalities and patient awareness has increased many folds in the past few years. Thus, planning of practice or shifting to different avenues become the most daunting and confusing task for a new orthodontist as he steps into the practice world.

Specific goals, concepts, and components of a comprehensive practice management of orthodontic practice management will be discussed in the lecture, more over different avenues present for a young orthodontist immediately after post-graduation will also be discussed.

| SPEAKER | TITLE |
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| Dr. Karan Nehra Assoc Prof Army Dental Centre (R&R) | Craniofacial anomalies |
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ABSTRACT:

| SPEAKERTITLEMaj (Dr) Raj Kumar MauryaOrthodontic considerations in Management of TMD: Biometric Diagnosis and Therapeutic assessmentArmy Dental Centre (R & R)& R) | | |
|--|---|---|
| Maj (Dr) Raj Kumar MauryaOrthodontic considerations in Management of TMD: Biometric Diagnosis and Therapeutic assessmentArmy Dental Centre (R & R)K | SPEAKER | TITLE |
| | Maj (Dr) Raj Kumar Maurya Assistant Professor, Army Dental Centre (R & R) | Orthodontic considerations in Management of TMD: Biometric Diagnosis and Therapeutic assessment |

ABSTRACT:

Orthodontic treatment have been claimed to play pathognamic role in precipitation of TMDs eitherat pre-disposing, initiating or perpetuating level, however there is lacunae of knowledge due to lackof sufficient evidence based literatures. The Major limitation in delineating the role of orthodontic treatment as a boon or bane is mainly due to lack of resources for quantification of TMDs signs and symptoms. Literatures have mainly reported retrospective analysis based on either questionnaire orradiographic assessment. With advent of Artificial Intelligence biometric assessment have become feasible to assess the TMDs signs and symptoms not only qualitatively but alsoquantitatively in all three dimension. Present talk will highlight role of Orthodontic treatment in precipitation or alleviation ofTMDs, which can be analysed by using Digital Occlusal analysis, TMJ Vibration analysis,Electromyography and Digital Jaw trackers.

| SPEAKER | | | TIT | LE | | |
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| Dr Arvind Sivakumar Asst Professor, Saveetha Dental College Chennai | Enigma Palate | of | transverse | discrepency | in | Cleft |
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In Cleft lip & palate there is a deficiency in the development of maxilla in all three planes due to the scarring caused by the primary cleft palate surgery. The deficiency happens due to the scarring left after the primary palatoplasty. The transverse correction of maxilla (maxillary expansion) takes precedence over the vertical & antero-posterior correction of maxilla. Also, there has been a lot of debate over the timing of the expansion. To do expansion before Secondary Alveolar Bone Grafting (SABG) or after bone grafting. Finally, what are the various appliances which were & are used for expansion. Their advantages & disadvantages. The controversy between Rapid palatal expansion or Slow expansion in cleft palate patients.

| SPEAKER | TITLE |
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| Dr. Nitika Monga Scientist D ICMR New Delhi | Pre-surgical Infant orthopaedics in Cleft lip and palate |

ABSTRACT:

Presurgical orthopaedics plays a crucial role in reshaping the deformed structures and minimizing the cleft deformation before surgery. It can be an adjunct to facilitate surgical repair in infants with cleft lip and palate. The primary aim of presurgical orthopaedics is the reduction in the soft tissue, alveolar bone and nasal cartilaginous cleft deformity to facilitate surgical soft tissue repair in optimal conditions under minimum tension to minimize scar formation. It also helps in enhancing the appearance and gives a psychosocial boost to the cleft patient and their parents. Several presurgical infant orthopaedics techniques have been described, such as maxillary plates, facial binding, lip taping and bonnet –strapping, and naso-alveolar molding (NAM). With the advances in 3D imaging and scanning along with CAD-CAM and 3D printing technology, the hassle-free and risk-free presurgical orthopaedics is not a distant dream. This presentation will dwell upon the various presurgical orthopaedics techniques and its clinical relevance in the current scenario.

| | SPEAKER | TITLE |
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| and the second sec | Dr Badri T | Critical Appraisal of literature |
| (1) unit | Clinical Lecturer | |
| | School of Dentistry | |
| | University of | |
| | Manchester, | |
| | UK | |

ABSTRACT:

| SPEAKER | TITLE |
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| Dr Mohit Mittal Honorary clinical lecturer, University of Sheffield, UK | 'Diagnosis and Surgical planning for Class II Orthognathic cases' |

ABSTRACT:

A combined orthodontic and orthognathic surgical treatment is indicated for an adult patient if the discrepancy in their skeletal base relationship is so severe that orthodontic camouflage either is not possible or would significantly compromise facial aesthetics.

A good clinical assessment of facial skeleton, overlying soft tissues and the dentition is required along with the

radiological assessment, in order to plan pre-surgical orthodontic treatment mechanics, orthognathic surgical movements and orthodontic retention.

The aim of this lecture is to provide the audience an insight into the diagnosis, orthodontic treatment mechanics and surgical planning for Class II orthognathic cases