PRACTICAL CONSIDERATIONS IN ORTHODONTIC DIAGNOSIS AND TREATMENT PLANNING: FROM ETIOLOGY OF MALOCCLUSION TO MULTIDISCIPLINARY TREATMENT

INCLUDES:
BASIC KNOWLEDGE ON DIFFERENT PRACTICAL SITUATIONS
FREQUENTLY ENCOUNTERED IN ORTHODONTIC PRACTICE LIKE MISSING TEETH
ANKYLOSED PRIMARY TEETH, HOPELESS DECAYED FIRST MOLARS...

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Goals: This series of lectures should enable the resident to:
1. Recognize common clinical conditions encountered in the daily practice of orthodontics.
2. Be able to manage these conditions by developing appropriate treatment strategies.

Objectives: At the end of this series, the resident should be able to:
1. Manage any clinical condition by proper diagnosis and establishing appropriate treatment alternatives.
2. Evaluate the advantages and the prognosis of any treatment plan, and gauge the components of a successful treatment.
3. Judge the optimal solution for critical cases, such as:
   a. Extraction of hopeless molars
   b. Extraction of retained primary molars with missing succedaneous teeth.
   c. Management of missing teeth, such as lateral incisors.
   d. Management of impacted teeth.
COURSE DURATION AND SCOPE: This course is scheduled between October and June for the first year residents. It is given every Thursday at a 2-hour session between 8:00 a.m and 10:00 a.m and imparts basic knowledge on different practical situations frequently encountered in orthodontic practice.

POLICY ON EXAMINATIONS: Biannual examinations (Midterm and Final) are given for the whole course.

PRACTICAL CONSIDERATIONS IN ORTHODONTIC DIAGNOSIS AND TREATMENT PLANNING: FROM ETIOLOGY OF MALOCCLUSION TO MULTIDISCIPLINARY TREATMENT

SUMMARY OUTLINE

- NORMAL OCCLUSION VS MALOCCLUSION
- ANDREW’S KEYS; FORERUNNER OF THE STRAIGHT WIRE APPLIANCE
- CORRECTIVE ORTHODONTICS IN EARLY AND MIXED DENTITIONS
- ETIOLOGY OF MALOCCLUSION
- MULTIDISCIPLINARY MANAGEMENT OF MISSING FIRST MOLARS
- MANAGEMENT OF TRANSVERSE MAXILLARY DEFICIENCY
- ORTHODONTIC TOOTH MOVEMENT TO REGENERATE NEW BONE AND PERIODONTAL TISSUE
- IMPACT OF PERIODONTICS ON ANTERIOR AESTHETICS (VIDEO PRESENTATION)
- IMPACT OF PERIODONTICS ON ANTERIOR AESTHETICS (VIDEO PRESENTATION)
- MANAGEMENT OF IMPACTED TEETH
- EXTRACTION VS. NON- EXTRACTION IN ORTHODONTICS
- RETENTION STRATEGIES BASED ON UNIVERSITY OF WASHINGTON RESEARCH (VIDEO PRESENTATION)
- ORTHODONTIC OBJECTIVES IN ORTHODONTIC SURGERY
- ARTICLE REVIEW SUBMITTED FOR PUBLICATION (AJODO)
- SUGGESTED READING
- READING ASSIGNMENTS

COURSE OUTLINE

SECTION ONE: NORMAL OCCLUSION VS MALOCCLUSION

1. DR ANGLE’S MAJOR CONTRIBUTIONS TO ORTHODONTICS

2. ANGLE CLASSIFICATION OF MALOCCLUSION

3. DEFICIENCIES IN THE ANGLE SYSTEM

4. ANDREWS SIX KEYS TO NORMAL OCCLUSION

REFERENCES
SECTION TWO: ANDREW’S KEYS: 
FORERUNNER OF THE STRAIGHT WIRE APPLIANCE

1. 1ST, 2ND, AND 3RD ORDER BENDS

2. PRE-INFORMED BRACKETS

3. STRAIGHTWIRE VS. STANDARD EDGESTYLE

REFERENCES


SECTION THREE: ETIOLOGY OF MALOCCLUSION

1. ETIOLOGY OF MALOCCLUSION
   
   A. Dental factors
      a. Supernumerary teeth
      b. Missing teeth
      c. Anomalies of tooth size and shape
      d. Abnormal labial frenum
      e. Premature loss deciduous teeth
      f. Delayed eruption of permanent teeth
      g. Abnormal eruptive path/ectopic eruption
      h. Transposition
i. Traumatic displacement of permanent teeth
j. Ankylosis

B. Oral habits
   a. Thumb sucking
   b. Tongue thrust

REFERENCES


SECTION FOUR: CORRECTIVE ORTHODONTICS IN EARLY AND MIXED DENTITIONS

1. OCCLUSAL RELATIONSHIP PROBLEMS
   A. Crossbites-functional shifts
   B. Impinging overbite-open bite

2. ERUPTIVE ABNORMALITIES
   A. Ectopic eruption
   B. Transposition
   C. Large midline/diastema
   D. Anterior rotation
   E. Supernumerary teeth
   F. Trauma
   G. Missing teeth
   H. Ankylosed
   I. Infraoccluded primary molars
   J. Over retained primary molars
   K. Primary failure of eruption
   L. Space loss / Space regaining

3. CROWDING (ALD)
A. Serial extractions
B. Arch length maintenance to gain space
C. Arch development
D. Fixed appliances in excessive misalignment

4. SKELETAL PROBLEMS
A. Cl III problems
B. Cl II problems

REFERENCES
SECTION FIVE: MULTIDISCIPLINARY MANAGEMENT OF MISSING FIRST MOLARS

1. OLD EXTRACTION

2. RECENT EXTRACTION OF HOPELESS FIRST MOLAR

3. STRATEGIC EXTRACTION OF SALVABLE FIRST MOLAR

4. IMPACTED FIRST MOLAR

5. EARLY EXTRACTION OF COMPROMISED FIRST MOLARS

6. CONDITIONS FAVORING THE EXTRACTION OF FIRST MOLARS

REFERENCES

1. Wilkinson AA. The early extraction of the first permanent molar as the best method of preserving the dentition as a whole. Dent Rec 1944; 64: 1-8.
SECTION SIX: MANAGEMENT OF TRANSVERSE MAXILLARY DEFICIENCY

1. ETIOLOGY

2. DIAGNOSIS

3. RAPID MAXILLARY EXPANSION
   A. Indications
   B. Effect on the maxillary complex
4. EXPANSION IN ABSENCE OF CROSSBITE

5. CLINICAL TIPS

6. SURGICALLY ASSISTED PALATAL EXPANSION

REFERENCES


SECTION SEVEN: IMPLANTS/ORTHODONTICS

1. IMPLANTS AS TEMPORARY ANCHORAGE DEVICES
2. IMPLANTS AS PROSTHETIC REPLACEMENT

3. ORTHODONTIC TREATMENT TO INCREASE BONE QUANTITY OR QUALITY

4. IMPLANTS AS ORTHODONTIC ANCHORS AND PROSTHETIC ABUTMENTS

REFERENCES


SECTION EIGHT: MISSING LATERAL INCISORS

1. SPACE REQUIREMENT FOR MISSING MAXILLARY LATERALS IN SPACE OPENING

2. TIMING OF IMPLANT PLACEMENT

REFERENCES

SECTION NINE: THE EIGHT COMPONENTS OF A BALANCED SMILE

1. LIP LINE
2. SMILE ARC
3. UPPER LIP CURVATURE
4. LATERAL NEGATIVE SPACE
5. SMILE SYMMETRY
6. OCCLUSAL LINE
7. DENTAL COMPONENTS
8. GINGIVAL COMPONENTS

REFERENCES


SECTION TEN: MANAGEMENT OF IMPACTED TEETH

1. SURGICAL TECHNIQUES TO UNCOVER MAXILLARY CANINES

2. MANAGEMENT OF SOME CASES
3. MANAGEMENT OF IMPACTED MAXILLARY INCISORS

4. MANAGEMENT OF IMPACTED MANDIBULAR CANINES

5. CASE PRESENTATIONS

6. MANAGEMENT OF IMPACTED MANDIBULAR SECOND MOLARS

REFERENCES


SECTION ELEVEN: EXTRACTION VS. NON-EXTRACTION IN ORTHODONTICS

1. LITERATURE REVIEW: HOW WE WENT FROM ONE EXTREME (ANGLE) TO THE OTHER (TWEED)?

2. IS THE CONTEMPORARY TREND TOWARDS NON-EXTRACTION JUSTIFIED?

3. MANAGEMENT OF SOME CASES
4. EXTRACTION CRITERIA

5. ESTHETICS

6. STABILITY

REFERENCES

17. Case Cs. Exhibit of models showing the injudicious extraction of the permanent teeth. Dent Rev 1903; 17:58-60.
SECTION TWELVE: ORTHODONTIC OBJECTIVES IN ORTHODONTIC SURGERY

1. ADVANCES IN ORTHOGNATHIC SURGERY AND ORTHODONTICS

2. TREATMENT OF JAWS DISCREPANCY: CAMOUFLAGE VS SURGERY

3. RATIONALE FOR SURGICAL TREATMENT

4. PRESURGICAL ORTHODONTICS
   A. Alignment
   B. Vertical (leveling)
   C. Anteroposterior
   D. Coordination (Transverse problems)

5. POSTSURGICAL ORTHODONTICS

REFERENCES