Table of Contents

Part 1: Orthodontic Diagnosis and Treatment

1. Quality of Life as an Indicator for Orthodontic Treatment
   B. Prahl-Andersen

2. Patient Compliance in Orthodontic Practice
   Pramod K. Sinha

3. Cephalomorphic and Biologic Approach to Diagnosis and Treatment
   Leonard S. Fishman

4. Occlusal Patterns in Orthodontic Patients: Using the Occlusal Force Measuring System
   Yukio Kitafusa

5. 3-D Superimposition for Quantification of Treatment Outcomes
   Lucia H.S. Cevidanes, Martin Styner, William R. Proffit

6. Bonding in Orthodontics
   Serdar Üsümez, Nejat Erverdi

7. The Implications of Bracket Selection and Bracket Placement on Expressed Tooth Movement and Finishing Details
   Anoop Sondhi

8. Quality Orthodontics: Going Against the Popular Trends
   Björn U. Zachrisson

Part 2: Clinical Management of Sagittal and Vertical Discrepancies

9. Functional Treatment Objectives
   William J. Clark
10. Hybrid Functional Appliances for Management of Class II Malocclusions

*Tarisai Dandajena*

11. Class II Combination Therapy: Molar Distalization and Fixed Functionals; Reducing Requirements of Patient Compliance for Predictable Completion of Treatment

*S. Jay Bowman*

12. Maxillary Deficiency Syndrome

*James A. McNamara, Jr.*

13. Effective Maxillary Protraction for Class III Patients

*Peter Ngan*

14. Etiological and Therapeutic Consideration of Open Bite

*Kazunori Yamaguchi*

15. Efficient Mechanics and Appliances to Correct Vertical Excess and Open Bite Patients

*Flavio Andres Uribe, Ravindra Nanda*

16. Etiology, Diagnosis and Treatment of Deep Bite Malocclusion

*Madhur Upadhyay, Ravindra Nanda*

**Part 3: Management of Adult and Complex Cases**

17: Orthodontic Treatment in Adult Patients With Reduced Periodontal Attachment

*Julia Harfin*

18. Diastemas: Is Permanent Retention Really Necessary?

*Thomas F. Mulligan*

19. Selective Mechanics in Complex and Compromised Cases
Sunil Kapila, Scott Conley
20. Orthodontics' Role in Obstructive Sleep Apnea

Richard S. Conley, Harry L. Legan
21. Optimizing Esthetics for the Interdisciplinary Patient

Vincent G. Kokich
22. Temporary Anchorage Devices: Biomechanical Opportunities and Challenges

Bhavna Shroff, Steven J. Lindauer
23. The Use of Microimplants in Orthodontics

Hyo-Sang Park
24. Predictable Distalization of Molars in Nongrowing Patients with Temporary Anchorage
Device Utilizing Titanium Miniplates

25. Rapid Tooth Movement and Effective Anchorage Control by Using Dentoalveolar Distraction Osteogenesis (DAD)

Haluk Iseri, Gokmen Kurt, Reha Kisnisci

Part 4: Applications of Biomedicine to Orthodontics

26. Mechanotransduction of Orthodontic Forces

Sunil Wadhwa, Ravindra Nanda, Carol Pilbeam
27. Orthodontic Root Resorption

Gregory J. King
28. Restoration of Oral and Craniofacial Defects by Stem Cells and Bioengineering Approaches

Jin Kim, Candice Zemnick, Jeremy Mao