## Contents

### Part I Facial Embryology and Neonatal Palatal Cleft Morphology

1. Embryogenetics of Cleft Lip and Palate 3  
   Geoffrey H. Sperber and Steven M. Sperber

2. The Value of Longitudinal Facial and Dental Casts Records in Clinical Research and Treatment Analysis 35  
   Samuel Berkowitz

3. Facial and Palatal Growth 45  
   Samuel Berkowitz

### Part II Types of Clefts

4. The Effect of Clefting of the Lip and Palate and the Palatal Arch Form 61  
   Samuel Berkowitz

5. Alternative Method Used to Correct Distorted Neonatal Cleft Arch Forms 87  
   Samuel Berkowitz

6. Complete Unilateral Cleft of the Lip and Palate 95  
   Samuel Berkowitz

7. Complete Bilateral Cleft Lip and Palate 133  
   Samuel Berkowitz

8. Lip Pits: Orthodontic Treatment, Dentition, and Occlusion – Associated Skeletal Structures 227  
   Samuel Berkowitz

### Part III Facial Growth in Cleft Palate Children

9. Characteristics of Facial Morphology and Growth in Infants with Clefts 245  
   Sven Kreiborg, Nuno V. Hermann, and Tron A. Darvann
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>A 25-Year Longitudinal Facial Growth Study of Unilateral Cleft Lip and Palate Subjects from the Sri Lankan Cleft Lip and Palate Project</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td>Brijesh Patel and Michael Mars</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Airway Management in Patients with Robin Sequence</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td>Kevin D. Han, Mitchel Seruya, Diego A. Preciado, and Albert K. Oh</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Pierre Robin Sequence</td>
<td>287</td>
</tr>
<tr>
<td></td>
<td>Samuel Pruzansky and Julius B. Richmond</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part IV Audiology/Otology</strong></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Management of Otopathology and Hearing Loss in Children with Cleft Palate and Craniofacial Anomalies</td>
<td>299</td>
</tr>
<tr>
<td></td>
<td>Amelia F. Drake and Jackson Roush</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part V Effects of Surgery and How It Was Utilized</strong></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Palatal Wound Healing: The Effects of Scarring on Growth</td>
<td>309</td>
</tr>
<tr>
<td></td>
<td>Johannes W. Von den Hoff, Jaap C. Maltha, and Anne Marie Kuijpers-Jagtman</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Facial Growth Related to Surgical Methods</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>Gunvor Semb and William C. Shaw</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part VI Lip and Palate Surgery: Millard–Berkowitz Protocol</strong></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>The Influence of Conservative Surgery on Growth and Occlusion</td>
<td>347</td>
</tr>
<tr>
<td></td>
<td>Samuel Berkowitz</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Choosing the Best Time for Palatal Surgery</td>
<td>389</td>
</tr>
<tr>
<td></td>
<td>Samuel Berkowitz</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part VII Another Tested Good Surgical Procedure</strong></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Two-Stage Palatal Surgery with Early Veloplasty and Delayed Hard Palate Repair: A Balanced View on Speech and Midfacial Growth Outcome</td>
<td>413</td>
</tr>
<tr>
<td></td>
<td>Hans Friede, Jan Lilja, and Anette Lohmander</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part VIII Facial Growth: Time Is the Patient’s Ally</strong></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Management of the Premaxilla/Maxilla in Bilateral Cleft Lip and Palate</td>
<td>441</td>
</tr>
<tr>
<td></td>
<td>Karin Vargervik and Snehlata Oberoi</td>
<td></td>
</tr>
</tbody>
</table>
## Part IX  Presurgical Orthopedics

20  **Neonatal Maxillary Orthopedics: Past to Present**  
Anne Marie Kuijpers-Jagtman and Charlotte Prahl  
455

21  **A Comparison of the Effects of the Latham–Millard POPLA Procedure with a Conservative Treatment Approach on Dental Occlusion and Facial Aesthetics in CUCLP and CBCLP**  
Samuel Berkowitz and Martha Mejia  
473

## Part X  Midfacial Orthodontic/Orthopedic and/or Surgical Changes

22  **Protraction Facial Mask**  
Samuel Berkowitz  
511

23  **Protraction Facial Mask for Early Correction of Midfacial Retrusion: The Bergen Rationale**  
Rolf S. Tindlund  
519

24  **LeFort I Osteotomy**  
S.A. Wolfe and Samuel Berkowitz  
537

## Part XI  Orthognathic Surgery

25  **Cleft Jaw Deformities and Their Management**  
Jeffrey C. Posnick  
557

26  **Secondary Bone Grafting of Alveolar Clefts**  
Frank E. Abyholm, Sayuri Otaki, and Masatomo Yorimoto  
601

27  **The Need for Differential Diagnosis in Treatment Planning**  
Samuel Berkowitz  
613

## Part XII  Distraction Osteogenesis

28  **Rigid External Distraction: Its Application in Cleft Maxillary Deformities**  
John W. Polley and Alvaro A. Figueroa  
633

29  **Remodeling the Mandible by Distraction Osteogenesis**  
Fernando Molina  
649

30  **Management of Maxillary Deformities in Growing Cleft Patients**  
Eric J.W. Liou and Philip K.T. Chen  
671

31  **Preventing Relapse Following Distraction Osteogenesis for the Cleft Midface in Adults**  
N.K. Koteswara Prasad, Syed Altaf Hussain, and Jyotsna Murthy  
693
Part XIII  Speech

32  Diagnostic Procedures and Instruments Used in the Assessment and Treatment of Speech. ............... 707  
    Samuel Berkowitz

33  Variations in Nasopharyngeal Skeletal Architecture. .... 715  
    Samuel Berkowitz

34  The Velopharyngeal Mechanism. ............................ 741  
    Robert J. Shprintzen

35  Surgical Management of Velopharyngeal Dysfunction. .... 759  
    Richard E. Kirschner and Adriane L. Baylis

36  Velopharyngeal Dysfunction Management Algorithms .... 777  
    Jeffrey L. Marsh

    Sally J. Peterson-Falzone

38  Speech, Language, and Velopharyngeal Dysfunction: Management Throughout the Life of an Individual with Cleft Palate. .................................................. 803  
    John E. Riski

39  Prosthetic Speech Appliances for Patients with Cleft Palate .................................................. 821  
    Mohammed Mazaheri

40  Palatal Lift Prosthesis for the Treatment of Velopharyngeal Incompetency and Insufficiency. .................. 839  
    Mohammed Mazaheri

Part XIV  Third World Cleft Treatment

41  Cleft Palate Treatment in Developing Countries of Africa. 855  
    Fadekemi O. Oginni and Wasiu L. Adeyemo

42  Birthing and Building Nascent Cleft Teams in Developing Countries. ............................................. 871  
    Emad Hussein, Hala Borno, and John van Aalst

43  Challenges in Cleft Care in Underdeveloped Countries. .... 879  
    Isaac L. Wornom III

Part XV  Psychological/Team Function

44  Examining the Team Process: Developing and Sustaining Effective Craniofacial Team Care. ............... 885  
    Lynn M. Fox and Patricia Ann Stone
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>Living with a Cleft: Psychological Challenges, Support and Intervention</td>
<td>Nichola Rumsey and Nicola Marie Stock</td>
<td>907</td>
</tr>
<tr>
<td>46</td>
<td>Managing Teasing and Bullying</td>
<td>Sara Shavel-Jessop, Joanna Shearer, Elizabeth McDowell, and Daniela Hearst</td>
<td>917</td>
</tr>
<tr>
<td></td>
<td><strong>Part XVI</strong> Multicenter Clinical Reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Part XVII</strong> Recording Patient Orthodontic/Surgical Findings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Berkowitz Recording Patient Information Form</td>
<td>Samuel Berkowitz</td>
<td>947</td>
</tr>
<tr>
<td></td>
<td><strong>Part XVIII</strong> The Patient’s World</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Social, Ethical, and Health Policy Issues in the Care of Children with Major Craniofacial Conditions</td>
<td>Ronald P. Strauss</td>
<td>955</td>
</tr>
<tr>
<td></td>
<td><strong>Index</strong></td>
<td></td>
<td>967</td>
</tr>
</tbody>
</table>
Cleft Lip and Palate
Diagnosis and Management
Berkowitz, S. (Ed.)
2013, XXX, 982 p. 498 illus., 180 illus. in color.,
Hardcover
ISBN: 978-3-642-30769-0