

Dr. Paul Staeckli, Professor and Chairman

Department of Dentofacial Orthopedics Center of Dental and Oral Medicine
University of Zurich Zurich, Switzerland

Obwegeser, HL: Mandibular Growth Anomalies Springer; Berlin, Heidelberg, New York (2001). Foreword by P Tessier and WR Proffit.

By persevering with the publication of this book some time after his retirement, Professor Hugo Obwegeser prevented an incalculable loss of knowledge gained by his enormous professional experience. This book is not only mandatory for maxillofacial surgeons, but also for orthodontists, because it details the early recognition of facial aberrations, which are best treated by both maxillofacial and orthodontic specialists. The often neglected relationship between transverse dimensions and facial asymmetry is particularly well discussed and documented in this book. This information is presented with an unprecedented depth and diversity, which is not found in any of the currently available textbooks.

Unquestionably, Hugo Obwegeser is internationally recognized as an initiator and pioneer in the development of craniofacial surgery. It is truly impressive to read about the evolutionary changes in this field since his early days as a clinical assistant. At that time, orthognathic surgery hardly existed, for the so-called prognathic operation was the only form of surgical intervention. At that time, osteotomies on the ascending mandibular ramus had only minimal bony contacts following repositioning. Such problems stimulated Professor Obwegeser to develop surgical procedures that not only solved these inadequacies, but could also be performed intraorally. In this particular case, his treatment was to sagittally split the ascending mandibular ramus, and to date, that modification remains the procedure of choice worldwide.

His subsequent cascade of innovative surgical techniques involving the orbito-nasal-maxillary complex propelled craniofacial surgery to its current high level of expertise. Professor Obwegeser's contributions, and those of his friend and colleague, Dr Paul Tessier of Paris who developed the Le Fort III facial repositioning technique and the procedure of entering the orbitae transcranially, enabled clinicians to correct the severest craniofacial anomalies and to give such patients a normal appearance.

For Professor Obwegeser, the mandible was the starting point for a series of genuine therapeutic procedures. The mandible continued to preoccupy and fascinate him, particularly its ability to influence the growth pattern of other facial structures and the general facial appearance. Once he recognized the wide variability in growth potential, form, and effect he began formulating and perfecting certain goals. He mainly wanted to rectify the prevailing chaotic situation by developing a systematic basis for structured diagnostic and therapeutic procedures. The results of all this

activity are manifested in this book. He was determined to produce a more precise terminology, and this he did, thus describing the deviations more precisely and with better differentiation between the basal and dento-alveolar components. The book very clearly details the documentation required for correct diagnosis and treatment planning, including scintigraphy. His proposed measurements using orthopantomographs are particularly informative because they clearly demonstrate regional differences between the 2 mandibular halves. Treatment planning for patients with skeletal facial abnormalities is formulated by 69 brief, but precise, principles. The last of these principles mirrors Professor Obwegeser's intellectual basis and innovative thinking: "When your standard procedures present limitations, find another one."

With detailed case presentations, he discusses, in the first part of the book, characteristics of bilateral and unilateral condylar hypoactivity, as well as mandibular hypoplasia; he then describes the specific procedures to correct these conditions surgically. These procedures were continually and progressively developed, following his principle of "find another one," until they also became standard procedures. They are described in a separate chapter, and the historical summary reads like a thrilling novel. The same can be said for the chapter detailing condylar hyperactivity, and it is quite clear that the unilateral form of this topic, in particular, truly fascinated Professor Obwegeser.

In a previous publication, he had already described 2 basic forms of the resulting anomaly, namely Hemimandibular Hyperplasia (HH) and Hemimandibular Elongation (HE). Among many specific differences, the former is mainly characterized by an increase in mass of the entire mandibular half, whereas the latter is characterized by a 1-sided increase in length of the condylar process and the ascending and horizontal ramus. These differing clinical conditions can be caused by errors in the fine regulation of condylar growth, because the pathologic processes immediately stop after performing a high condylectomy. Professor Obwegeser suggested that in their pure forms 2 regulatory factors, M (for mass in HH) and L (for length in HE), should be responsible for the 2 totally different clinical conditions. Not infrequently, combinations of these conditions can occur, and they produce truly grotesque facial disfiguration.

Dr H. U. Luder, Head of the Department of Oral Structural Biology, Center of Dental and Oral Medicine, University of Zurich, histologically examined those condyles resected in cases of HH and HE, and his findings are detailed in this book as well. He concluded that the different clinical forms of condylar growth anomaly could not be histologically differentiated. Probably molecular biology will be required to verify Obwegeser's hypothesis and to fulfill his hope that growth regulators M and L will be identified as influencing condylar growth differently. Obwegeser is in good company with the entire body of clinical specialists and researchers, because they too have been unable to clarify the mechanisms controlling growth of mandibular condyles. Despite this, his extremely well-documented book expertly describes clinical

differences in the anomalies of mandibular growth and details the current state-of-the-art techniques for the specific and correct surgical intervention. In his foreword, Paul Tessier writes, "After training in the Jaw's Old Testament, Hugo is writing the New One." This book can be highly recommended as a must for all clinicians treating conditions involving facial anomalies.