Oral and maxillofacial surgery is a unique specialty and one that is often considered a bridge between the disciplines of medicine and dentistry. As the breadth and scope of this field are vast and ever-expanding, we aimed in this book to comprehensively define the epidemiologic, diagnostic, clinico-pathologic, and therapeutic understandings for jaw disease in a holistic manner. Surgery or other treatments for various jaw diseases require all-round planning and special expertise owing to the complexity of the structures involved, as these determine the optimal functions and aesthetic outcomes for patients.

We have also included in this book a brief highlight of the key aspects of facial development. The processes of normal oral and maxillofacial growths are outlined prior to descriptions of jaw diseases. Understanding the growth and formation of head and neck structures from embryological development through puberty is a prerequisite for understanding the etio-pathogenesis of jaw diseases and is helpful for refining treatment strategies and procedures. An example of this is the Sistrunk procedure, which is now routinely used to surgically manage the thyroglossal tract cyst. In the Sistrunk procedure, the thyroglossal duct cyst and surrounding tissues extending from the cyst to the foramen cecum are removed. The aim of this approach is to clear off the entire epithelial lining that might have been left behind in embryological development, with the rationale that any remnant of such epithelial lining may contribute to relapse.

Maxillary and mandibular cysts are relatively common lesions that appear in the jawbone. Jaw tumors and cysts are also called odontogenic tumors and cysts, as they originate from the tooth-forming epithelium and mesenchyme in the jaw bones during development. Besides, they can also arise from the nonodontogenic epithelium trapped during the obliteration of vestigial structures. Odontogenic cysts and tumors can be categorized based on their putative developmental origins. Odontogenic lesions are usually classified according to biological behavior as benign, malignant, or nonneoplastic; however, most odontogenic lesions are benign. Odontogenic cysts are defined as pathological cavities encompassed by epithelial lining with fluid or semifluid contents. To resolve these lesions, different treatment modalities have been developed and described in the literature. However, the nature and proper treatment of different cysts remain a contentious topic though consensus is reached in some. Thus, another aim of this book is to provide an update on the latest knowledge in the field of treatment choices, and discuss the complexity of various surgical treatments and their potential in swinging the outcomes. Our third intent in writing this book was to comprehensively list the practical and a rational clinical guideline for the management of jaw diseases according to odontogenic, nonodontogenic, and malignant classifications. Of these diseases, ameloblastoma is the most common, progressively growing, and locally invasive epithelial odontogenic neoplasm in the jaws, and is characterized by a high rate of local recurrence when maltreated or undertreated. Therefore, complete excision of ameloblastoma with negative margins remains the mainstay of curative treatment, and one-stage bone reconstruction is often advised when segmental resection is performed.

This book was prepared particularly for those in the medical and surgical specialties and related disciplines who are managing and researching jaw disorders. The first chapter begins with a comprehensive review of the basic science of tooth and jaw development. This is followed in each subsequent chapter by a detailed but concise discussion of the epidemiology, etiology, pathogenesis, clinical presentations, radiological findings, management, and prognosis of odontogenic lesions. Exemplary clinical scenarios with complete clinical information and related illustrations are invaluable for medical students and junior surgeons, as they can visually arm them for possible clinical challenges. Additionally, the book was designed for experienced clinicians as a handy refresher and comprehensive guide for thorough review. The illustrations here provided are also accompanied with concise bullet points and are ideally suited for the quick scanning and speedy grasp of information by a busy practitioner. We do hope that the clinicians who read this book will find the illustrations and treatment strategies to be valuable additions to their surgical armamentarium and that they benefit treatment of patients eventually. We will also be extremely pleased if this book fulfils its desired aim of defining the current state of related knowledge in the oral and maxillofacial specialty.

Chenping Zhang, MD, PhD, FRCS (Edinburgh)
Department of Oral & Maxillofacial – Head & Neck Oncology,
Shanghai Ninth People's Hospital,
College of Stomatology Shanghai Jiao Tong University School of Medicine,
Shanghai Key Laboratory of Stomatology, Shanghai, China