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Endocrine and Neuroendocrine Surgery

Springer

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Preface

Although tumors of the endocrine system have challenged physicians since ancient times, our understanding of these disorders has made rapid progress over the past century. Identification of the parathyroid glands in 1880 by Ivar Sandstrom, Theodor Kocher's Nobel Prize in 1909 for his work on the pathophysiology of the thyroid gland and safe surgery, and Cushing's work on pituitary tumors are several notable examples. These tumors are unique from other solid tumors in that they may be benign or malignant, yet cause clinical syndromes due to excess secretion of hormones. Other tumors from the endocrine system may be nonfunctional and malignant, such as thyroid tumors, or incidentally discovered during workup for other conditions.

Neuroendocrine tumors are comparable to their endocrine counterparts in that they frequently also secrete hormones that give rise to symptoms. We have also come a long way in our understanding of neuroendocrine tumors over the past century. Ransom's account of a patient with an ileal tumor, liver metastases, and diarrhea in 1890, Oberndorfer's description of ileal tumors as "karzinoide" in 1907, and Pearse's depiction of the diffuse amine precursor uptake and decarboxylase system in 1969 are just a few of the important observations. These tumors continue to present challenges due to their frequent diagnosis at advanced stages, making their management complex.

Surgeons treating endocrine and neuroendocrine neoplasms must be knowledgeable about their respective pathophysiology, in order to select appropriate imaging and biochemical tests to make the diagnosis and localize the tumor. They must also be familiar with the expected patterns of local, regional, and distant tumor spread in order to best effect cure or palliation. And finally, they should be proficient with the anatomic challenges presented by the many regions of the body where these tumors may arise.

There is a wealth of authoritative texts and atlases on the subject of endocrine surgery, but very few are also devoted to neuroendocrine tumors. The rising incidence of these cancers has led the general surgeon to encounter them with increasing frequency, but their management is not as well understood as endocrine tumors. For detailed descriptions of pathophysiology and diagnostic workup, we direct readers to the textbooks focusing upon these specific topics.

The objective of this book is to comprehensively describe the surgical approaches to endocrine and neuroendocrine tumors. To do this, I have gathered together a group of talented surgeons who I have had either the honor of working with or getting to know over the past few decades, who represent some of the most talented figures on these subjects in the field of surgery. Here the focus is upon the selection of patients for operation and detailed descriptions of these operative techniques. These are exhibited through beautiful color illustrations and concise text, and it is my hope that these chapters will enhance the delivery of excellent care from residents, fellows, and practicing clinicians to their patients with these tumors.

Iowa City, IA, USA — James R. Howe

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This book is dedicated to my wife, Denise, for her patience over the years as I trained and later practiced in the art of surgery. It simply would not have been possible without her loving support and the many sacrifices she made over the years for our family. I would also like to thank Ron Weigel for his guidance over the past decade as my Chairman, Carol Scott-Conner, for giving me my first academic opportunity, and Sam Wells and Murray Brennan for their incomparable training and mentorship. I also extend my sincere appreciation to all of the authors who contributed their time and expertise, and especially to my friend James Mezhir, who could not be with us in this satisfying moment. Finally, I commend Lee Klein for his skill in shepherding this volume from just an idea through to its actual creation.

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