To my father

I think he would have enjoyed this book
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Foreword

For more than 60 years, the Californian Family Hinman has exercised a very considerable influence on the development and practice of the highest grade of urology, not only in the American West but worldwide. The leitmotiv of the Hinman School has been honest and thoughtful consideration of the problems of the genitourinary system gone awry. Character is the quintessence of the Hinmans. This virtue distinguishes the present volume on benign prostatic hypertrophy assembled and edited by Frank Hinman, Jr.

I first came under the spell of Frank Hinman, Sr. via his classic studies of renal counterbalance. In brief, in an experimental animal the ureter of one kidney was ligated and the subsequent renal hypertrophy of its contralateral mate was studied quantitatively from anatomic and functional standpoints. There were two central questions in the Hinman study: How does a normal kidney of an experimental animal recognize that its load has been doubled abruptly? What is the signal for renal hypertrophy?

Benign hypertrophy of the prostate is quite different from compensatory hypertrophy of the kidney. It is now known that benign prostatic hypertrophy (BPH) is not a hypertrophy but a benign tumor consisting of a collection of spheroids of micro- and macrodimensions. In technical terms BPH is an adenofibromyoma.

Perusal of the present volume will reveal many fascinating facets of BPH of particular interest to urologists and others with an investigative bent of mind. BPH does not occur in children. BPH occurs as a medical rarity in the female prostate of women. BPH develops with frequency in elderly men in whom the production of testosterone and its isomers is very low indeed. BPH is seen commonly in the Western Hemisphere, uncommonly in the Orient.

In searching for therapy to shrink benign prostatic hypertrophy, bilateral orchiectomy had been found to be highly effective (White JW: The present position of the surgery of the hypertrophied prostate. Ann. Surg. 48:152, 1893). Whereas profound regression of malignant neoplasms of certain organs has been accomplished by nonsurgical means, the relief of benign tumors remains challenging.

Chicago

CHARLES HUGGINS
One of the greatest difficulties facing practicing physicians and medical researchers today is the problem of staying abreast of new developments. Many of us solve this problem by increasing our degree of specialization, and this approach has positive effects: development trends might stagnate if individual researchers were unable to devote their life's work to elucidating what may appear to be insignificant details. Specialization has its drawbacks, however. Scientists need extensive contacts to grasp the overall picture that is necessary to link productively their research efforts and findings with more comprehensive perspectives and to take advantage of the opportunities offered by the increasing sophistication and effectiveness of modern research techniques. It is also imperative for technicians to regularly update their skills and remain abreast of new developments. Not only must they learn to use new diagnostic and therapeutic techniques, they should also understand the biological processes that lie behind the new developments. The primary question is, How can we establish the required cooperation and coordination?

Scientists tend to discuss their common problems in small, well-informed circles. The efforts expended in these forums have created opportunities to exchange know-how and experience; they have also formed a basis for personal bonds of friendship. This type of work, in turn, has created worldwide networks that provide stimulating personal relationships. The results of this form of intimate cooperation, however, are all too often restricted for unreasonably long periods of time exclusively to the initiated circles. Thus, the problem is to find ways of more rapidly spreading this reservoir of scientific knowledge to persons working in the field—both clinical personnel engaged in practical applications and researchers working in related fields of scientific study.

This book may be regarded as an attempt to solve this problem in a vital area within the field of urology. In my view the result is impressive. Evidence of this is shown by two particular points. First, the book shows the editor's ability to survey the extensive body of knowledge in question, as well as his impressive accomplishment in establishing contact with such a large cadre of highly respected colleagues from all parts of the world. Second, the book itself serves as testimony to the need for a publication of this kind. Approximately 100 hand-picked specialists give their viewpoints on various detailed problems, but the overall presentation nevertheless provides a coherent picture. Relevant problems are treated in logical sequence—
the basic biological conditions are presented in relation to endocrinological and neurophysiological aspects, the nature of obstruction and its consequences, operative indications, surgical techniques, and results of treatment.

The editor has succeeded in capturing the stimuli generated by cooperation and the exchange of knowledge on an international plane. Urologists and professionals working in related fields have every reason to express their gratitude for the work that lies behind this book. It is obvious that it will be a valuable aid to those working within the field of urology who wish to refresh and extend their knowledge, as well as to those in related fields who are required to familiarize themselves with current research findings and clinical practice in this area.

Stockholm

GUSTAV GIERTZ
Preface

The Confluence of Endocrine, Neurophysiologic, and Urodynamic Advances

Benign prostatic hypertrophy (BPH) is a common medical problem. A report from the National Institutes of Health states that “more than 80% of adult males 50 to 60 years of age and older have benign enlargement of the prostate gland. Ten percent of these patients will require surgery to relieve the obstruction caused by the enlarged gland, and a much larger number will suffer intermittent pain and disability. Surgical techniques need to be improved, and more efforts should be directed toward the development of effective drug therapy and other nonsurgical methods to control the disease.”* Since so many men are affected by BPH, even though it is seldom a fatal disease, the resolution of problems in its diagnosis and treatment assumes substantial importance.

Progress is being made in uncovering etiological factors as the basis for rational treatment of BPH, in diagnosing it through the maturing discipline of urodynamics and in treating it by both pharmacological and surgical means. This progress is the result of collaboration among scientists in basic research (particularly physiology, pathology, chemistry, and physics), academic clinicians (in endocrinology, fluid mechanics, and neurophysiology), and urologic surgeons (by correlating observations, techniques, and results). New work on endocrine receptors and androgen transport is shown to fit with observed hormonal effects on various cell types, which in turn leads to laboratory experiments and human therapeutic trials. Further, more thorough understanding of normal and abnormal micturition from basic work on neural transmission now allows pharmacologic manipulation to alleviate some of the effects of prostatic obstruction. Then, the tremendous growth of the relatively new discipline of urodynamics better exposes the causes and effects of obstruction and provides new methods to evaluate the indications for treatment and its effectiveness. Finally, operative management of BPH has reached maturity, so that surgical techniques and surgical complications (with their detection and correction) can be clearly and authoritatively described for use by the practicing urologist.

The record and results of this work are not easy to obtain, either by the clinician or by the researcher. Reports of workshops on urodynamics and

BPH have had a limited circulation, and pertinent articles are spread through the many scientific journals with segregated readerships. This volume provided an opportunity to assemble, organize, and correlate what is known about the disease. More than that, it has provided a stimulus to many workers to rethink their area of interest and to present material and ideas that appear in print for the first time.

Authors from throughout the world thought to be particularly knowledgeable have contributed chapters for major areas, supervised by section editors, themselves selected for their special expertise. Every facet of the disease has been covered thoroughly. The editors have correlated the chapters for which they had responsibility and have made important recommendations that strengthen the book. We have been mindful of the need to make the work practical—to be of value to the clinician and to the researcher as well. We believe the book contains most of what is now known about the disease: its origins, how it affects the normal functions of excretion, and how it is treated pharmacologically and surgically. All of the authors have written chapters that bring their field up-to-date, and each section points to the future.

The chapters vary in their orientation, some written by clinicians for clinicians, some by scientists for other scientists. But most are written by authorities with feet in both camps for readers with broad interests in the disease. With so many authors involved, some duplication is inevitable, and disagreements and contradictions appear. The editors have smoothed the way for the reader, but to impose uniformity and agreement in such a rapidly advancing field would be stifling.

The subject matter will be of use to the urologist, of course, but also to the general physician, realizing that the number of office visits for BPH equals that for gastric ulcer. And basic scientists working in the areas of pharmacology, endocrinology, physiology, and hydrodynamics will find information and stimulus relevant to their fields. The reader is invited to choose those chapters that are of current interest to him. Some readers will look for informative entertainment and some will skip certain complex and specialized areas (unless they read them for their "cultural" value). On the other hand, most chapters will attract the clinician for their practical instructions to help solve clinical problems; much of what is written will lead to better practice. Finally, it is hoped that the book will stimulate inquiring minds to work on the many questions still to be answered about benign prostatic hypertrophy.
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