

Limin Liao
Helmut Madersbacher
Editors

Neurourology

Theory and Practice

 Springer

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Foreword

Dear Colleagues,

For some 60 years doctors have been addressing in depth the effects of Neurogenic Bladder Dysfunction on the life expectancy and quality of life of those affected. The decisive factor was not least the desolate and mostly deleterious course of this complication which emerged increasingly through injuries to the spinal cord in the two World Wars. In the following years numerous further illnesses were discovered, the complications of which are similar. The causes are manifold.

Apart from traumatic disorders, inflammatory malignant or hereditary diseases frequently lead to dysfunction of the bladder with the aforementioned consequences.

The therapy for one cause is—as, for example, with paraplegia—seldom or not at all possible for others.

Due to the clinical and scientific efforts of doctors such as Guttmann, Bors and Comarr, Rossier, Scott, Lapidès, McGuire, Brindley and others it became possible in the second half of the last century to achieve decisive improvements in the quality of life and life expectancy of these patients.

International scientific societies involved, such as ISCOS, ICS, EAU, AUA—along with many national societies—supported this research with dedication and success.

Also colleagues from the industry's research facilities have contributed important impulses towards the improvement of the clinical situation.

The book/e-book edited by Liao and Madersbacher shows the latest standing of development with all its facets. It represents impressively the current state of development and is a comprehensive complete work of almost all the scientists working in this area.

The current form of an e-book should contribute to spreading the comprehensive contents quickly and globally. I am convinced that it makes extensive information possible for all interested medical specialties.

Our scientific endeavour has led to an enormous wealth of data and therapy options. I would be delighted if these findings lead to an improvement in the quality of life of our patients.



Manfred Stoehrer
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Preface

The reader of this book/e-book may welcome a statement from the editors on the principles underlying the book and a few additional words of explanation. First, the term “neurogenic bladder,” includes all disturbances of function and diseases of the bladder due to disorders arising in the central nervous system, peripheral nerves, or intrinsic nerves and ganglia. The term neurogenic bladder is therefore incorrect and misleading. Neurogenic bladder should be replaced by neurogenic lower urinary tract dysfunction, but the term neurogenic bladder is still used worldwide for these diseases.

Neuro-Urology is regarded as a sub-specialty of urology dealing with urinary tract dysfunction caused by acknowledged neurologic diseases or nerve lesions, thus comprising a wide spectrum of different etiologies, pathophysiologies and subsequent functional and secondary structural consequences for the lower and upper urinary tract, then including the diagnosis and treatment for these dysfunctions and complications.

Neuro-urology is a fast-growing sub-specialty. Therefore, an e-book format was chosen, and Springer kindly agreed that the authors could update the chapters every 2 years. Thus, the content of the e-book will more or less parallel developments in the field of neuro-urology.

The aims of this book/e-book are to give an update on neuro-physiology and neuro-pathophysiology of the lower urinary tract, present the principles of the diagnostic evaluation, describe the clinical problems, and inform the reader about the current therapeutic options.

To achieve this purpose, we have invited an impressive number of renowned contributors, including 87 of the most distinguished international experts in this field from 24 countries in Europe, Asia, North America, and South America. The book/e-book is truly an international effort and collaboration. The invited authors are a mixture of older, experienced and younger, very active neuro-urologists. The editors would like to thank all of the authors for their excellent work.

The first part of this book focuses on the basic anatomy of the urinary tract, which will facilitate an understanding of the basic scientific knowledge of innervations and neural control of the lower urinary tract (LUT), clarify the pathophysiologic changes of the upper and lower urinary tracts caused by various nervous system diseases, present the epidemiologic data and risk factors, and describe the classification criteria of neurogenic upper and lower urinary tract dysfunction.

The second part of the book will comprehensively and systematically elaborate the diagnosis and evaluation of neurogenic bladder disorders from the beginning of symptom assessment to the endoscopic examination, focusing on the urodynamic and electrophysiologic examinations of the LUT.

The third part of the book describes the various methods of treatment for neurogenic bladders, including the classic traditional and new controversial methods. With respect to the latter, we have asked the authors to provide evidence-based, objective, scientific, and fair descriptions of the current status, advantages, disadvantages, and future prospects of new therapies.

The fourth part of the book gives a comprehensive account of urinary tract infections, pain, and other complications caused by neurogenic bladders, as well as associated bowel, sexual, and reproductive dysfunction, with an emphasis on the importance of follow-up evaluations.

The last part of this book describes the specificity of neurogenic bladders, as caused by ten neurologic diseases, including pediatric neurodevelopmental abnormalities and spinal cord injuries in adults.

Neuro-urology has not yet received sufficient attention, although in the clinical setting we have a large and increasing number of patients with neurogenic bladders who do not receive quality medical care, as well as timely and accurate diagnosis and treatment.

If this book/e-book inspires more medical personnel, especially young colleagues, to develop an interest in neuro-urology, and if it provides senior researchers and clinical practitioners in the field with a valuable cutting-edge reference book, then we will be satisfied as editors.

We are delighted and honored, that Professor Manfred Stöhrer, the former Chief of the Department of Neuro-urology at the Trauma Hospital in Murnau (Bavaria/Germany) and Lecturer on Neuro-urology at the University of Essen, has written the foreword to this book/e-book. Not everybody is aware that it was Manfred Stöhrer who reported for the first time the beneficial effects of botulinum toxin injection into neurogenic overactive bladder at the 1999 International Continence Society (ICS) meeting in Denver.

Finally, we would like to thank Mr. Bing Hu of Springer for his most valuable support of this book/e-book, and the International Neuro-urology Society (INUS) for help during the organization and writing of this book. We also want to thank Drs. Zhao Haitao, Fan Zhang, and Xing Li, as well as Ms. Mag. Irina Anich for help in editing this book. Last, many thanks go to our families for unconditional support.



Beijing, China
Innsbruck, Austria

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