

J.-U. Stolzenburg • Matthew T. Gettman • Evangelos N. Liatsikos (Eds.)

Endoscopic Extraperitoneal Radical Prostatectomy
Laparoscopic and Robot-Assisted Surgery

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With 197 Figures and 10 Tables

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Foreword

Minimally invasive interventions were a source of controversy as early as the beginning of the 1960s in stone removal. A group of young, aggressive urologists gradually shortened the standard approach to the kidney to a few centimetres, developed special instruments for this purpose, and entered into competition with the general surgeons who were carrying out cholecystectomies via mini-incisions. The arguments – shortening hospital stay, decreasing the need for postoperative pain therapy – were the same, until PNL and ESWL achieved better results.

Age and experience have always been the enemies of progress, but this did not prevent the development of laparoscopic techniques in urology, beginning with the detection of cryptorchid testes and retroperitoneal lymphadenectomy. Ten years ago I counselled one of my most dextrous pupils to avoid laparoscopy. He ignored my advice and is now one of the most sought-after urologists in Belgium.

In the evolution of surgical techniques the wheel of history has often rolled backwards. The widespread use of clamps in intestinal surgery is perhaps one of the most instructive examples of a broad return to conventional techniques, with the newer methods becoming restricted to particular indications.

It is only natural to mistrust a new technique – in this case EERPE – that one cannot perform oneself.

In the field of laparoscopy the investment in robots is so immense that a retreat in the foreseeable future seems unlikely. In the USA – the land of unlimited opportunities – robot-assisted radical prostate surgery has become one of the financial pillars of 500 urological clinics, with up to three operations per day. It thus seems likely that industry will exert more influence than ever on the diffusion of laparoscopic techniques.

Word of mouth, however, remains the strongest influence on individual patients, who gravitate to the centres where satisfaction is highest. Distance and time play an ever-decreasing role in their decisions.

The Centre of Urologic Laparoscopy at the University of Leipzig is among the leading institutions in terms of numbers of patients treated, and is peerless in the number of courses offered each year and the number of participants. This book is thus a product of 10 years' experience of performing and teaching EERPE. All that has been learned is contained between its covers.

The reader just needs to glance at the chapter on topographical anatomy to become enthralled by the innovative three-dimensional functional depiction of the pelvic organs and their internal innervation. The computer-aided portrayal sets new standards for the future. The succinct text clearly outlines what we already know and what remains to be discovered.

The same is true for all the other chapters. Particular mention should be made of the unrivalled depth of focus of the photographs and Gottfried Müller's excellent illustrations.

In contrast to other books on this topic, a chapter is dedicated to the prevention and management of complications.

The editors and authors are to be congratulated on a splendid volume. The effort invested in anatomical studies, illustrations and animal experiments exceeds by far that in other comparable titles.

Mainz, March 2007

R. Hohenfellner

Preface

Endoscopic/laparoscopic extraperitoneal radical prostatectomy has been established in the literature as an intriguing therapeutic option for the management of carcinoma of the prostate. Endoscopic and robotic approaches have proved to be equally effective for the management of localized prostate cancer. Nerve-sparing endoscopic/laparoscopic and robotic radical prostatectomy should aim to maintain sexual function and restore continence early after surgery without impairing the final oncological outcome.

The advent of laparoscopy and robotics has revitalized the discussion pertaining to the anatomy of the structures surrounding the prostate gland. Despite the different approaches for radical prostatectomy the key to better results is full understanding of the anatomy of the prostate, the bladder neck and the urethra. A special chapter has thus been devoted to the anatomy of the prostate and its surrounding structures.

There is a plethora of urology textbooks describing laparoscopic procedures in different ways. The present book is more an atlas than a conventional text-

book. Our main goal is to guide the urologist step by step through the procedure, aiming to make this highly standardized technique reproducible. Every procedure is presented with numerous endoscopic images and diagrams so that the reader can fully comprehend the different surgical steps. Complications and useful tips and tricks for their management are described in detail.

We would like to thank Jens Mondry and Gottfried Müller for their significant contributions with regard to computer imaging and design creation, respectively. Furthermore, we would like to express our gratitude to all contributing authors for their significant scientific input.

Jens-Uwe Stolzenburg
Matthew T. Gettman
Evangelos N. Liatsikos

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List of Abbreviations

a	external iliac artery	pc	prostatic capsule
aw	abdominal wall	pf	periprostatic fascia
bl	bladder	pg	prostate glands
bm	bladder mucosa	pl	puboprostatic ligament
bn	bladder neck	pln	pelvic lymph nodes
bo	bladder outlet	pp	prostate pedicle
bp	bulb of penis	pt	peritoneum
bu	bulbourethralis glands (Cowper's glands)	r	rectum
ca	common iliac artery	rm	rectus muscle
dl	detrusor lamellae	sc	spermatic cord
dv	Denonvillier's fascia	sp	Santorini plexus
ef	endopelvic fascia	sv	seminal vesicle
ev	epigastric vessels	u	urethra
ia	internal iliac artery	ul	urethral lumen
iv	internal iliac vein	ur	ureter
la	levator ani muscle	us	urethral sphincter
nvb	neurovascular bundle	v	external iliac vein
oe	obturator externus muscle	va	(superior) vesical artery
oi	obturator internus muscle	vd	vas deferens
p	prostate	vs	vesical sphincter
pb	pubic bone		

Endoscopic Extraperitoneal Radical Prostatectomy. Douglas O. Faigel. Endoscopic Oncology: Gastrointestinal Endoscopy and Cancer Management examines the interface between endoscopy and oncology, and its utilization in the prevention, diagnosis, and management of cancer. Organized anatomically, chapters covering relevant cancers and premalignant conditions of the esophagus, stomach, colorectum, and pancreaticobiliary are explored in depth. This volume presents the reader with chapters summarizing state-of-the-art endoscopic medical and surgical cancer treatment, including endoscopic mucosal resection. WebMD explains radical prostatectomy, a prostate cancer surgery in which the prostate gland and surrounding tissue are removed, including benefits, risks, and recovery. Who Should Undergo Radical Prostatectomy? Types of Radical Prostatectomy. Open Radical Prostatectomy vs. Minimally Invasive Radical Prostatectomy. Risks of Radical Prostatectomy. Success of Radical Prostatectomy. What to Expect After Radical Prostatectomy. Radical prostatectomy is an operation to remove the prostate gland and tissues surrounding it. This usually includes the seminal vesicles and some nearby lymph nodes. Radical prostatectomy can cure prostate cancer in men whose cancer is limited to the prostate. Who Should Undergo Radical Prostatectomy?