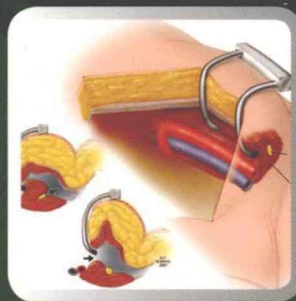
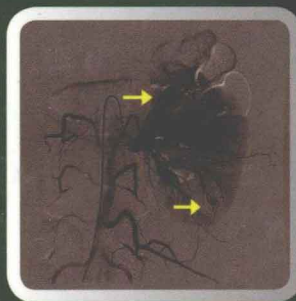
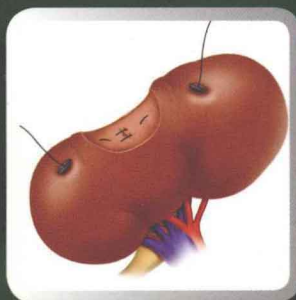


**SAMIR S. TANEJA**

# COMPLICATIONS OF UROLOGIC SURGERY

Prevention and Management



FOURTH EDITION

# COMPLICATIONS OF UROLOGIC SURGERY

Prevention and Management

FOURTH EDITION

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*This book is dedicated to the memory of my dear friend and colleague, John P. Stein. When he passed last year, John left a void in the community of urologic oncology, particularly among those of us in the generation of his contemporaries. John's optimism and energy for life charismatically drew us to him. The fact that so many were deeply affected by his passing coupled with his uncanny ability to make each of us feel special and important reflects his impact.*

*John left an eternal legacy through his unending pursuit of perfection and excellence in the care of patients. Despite his tremendous academic accomplishments, his zeal for scientific inquiry, and his global outreach as an educator, John always placed the care and outcome of his patients first. No matter how good the outcome, he always felt it could and would be made better through his efforts. In this regard, John will always live on as an example to all of us and stands as a wonderful symbol of the spirit of this text.*

*On a personal level, I would like to offer thanks for the love and support given to me by my own family, Uttama, Sorab, and Sabina. The family of every surgeon makes sacrifices through time lost and hours waiting. Without them, the time lost in our work would have little meaning. Through my wife Uttama's guiding hand, I find life's balance and meaning, and through the eyes of my children, Sorab and Sabina, I find its promise and discovery. I thank all three of them for the sacrifices they made in the preparation of this text.*

SST



# PREFACE

Regardless of the number of years in practice or cases performed, the prevention and management of surgical complications remain primary challenges for any operating surgeon. Although directly impacted by surgical technique, patient selection, and underlying disease processes, some complications inevitably arise even in the perfect candidate receiving the perfect operation. Despite this, the surgeon must continue throughout his or her career to make every effort to reduce the possibility of complication through careful patient selection, methodical preoperative patient optimization, and careful attention to technique.

First and foremost, complications take a tremendous emotional and physical toll on our patients, and surgeons must remember this when confronted with a complication. For the patient, the process of surgery is one in which control is given completely to the surgeon. The uncertainty of outcome, the loss of control, and the fear of mortality are tremendously stressful for the patient even in the setting of an uncomplicated surgery. When complications arise, these stresses are magnified and patients and their families are often confused, depressed, or angry. Careful, calm, and comprehensive communication are essential to enable them to understand the nature of the complication, its probable causes, and the planned management. Discussing potential outcomes, concerns going forward, and specific benchmarks for improvement can allow the patient a structured process to mentally cope with the situation. Patients with complications often fear the surgeon will abandon them, and reassurance can go a long way toward maintaining a good relationship.

Physical concerns in the setting of complications relate to the patient's ability to tolerate the stresses and the relative risk of prolonged hospitalization. In patients with pre-existing comorbid conditions, careful attention to management of underlying disease processes, particularly those influencing recovery, will help in avoiding secondary complications. Maintaining nutrition, preventing infection, and carefully monitoring fluids and electrolytes are fundamental surgical principles that directly affect recovery from most intra-abdominal and intrathoracic surgeries but that can be forgotten in the heat of a stressful complication. Although not all patients recover from complications, the surgeon's primary goal must be to ensure that the patient's odds of recovery are optimized by optimizing his or her condition.

The balance between action and inaction is a difficult one for surgeons. An underlying desire to make a com-

plication go away often leads to the decision to act quickly through intervention or reoperation. Although sometimes indicated, quick decisions to intervene often result in worsening of the problem or development of secondary complications. At the time of complication, careful diagnostic evaluation to fully understand its nature and extent are critically important before any action is taken. Although stressful for both the patient and surgeon, sometimes waiting it out is the best course of action.

It is the intent of this fourth edition of *Complications of Urologic Surgery: Prevention and Management* to provide both general and specific guidelines for surgeons in the management of most common, and many uncommon, urologic surgery complications. The response to the third edition of the book has been uniformly positive with many commenting on its tremendous utility in preparing for both a urologic career and day to day practice. Using this helpful feedback I have structured the book's fourth edition. Over the 10 years since I began constructing the third edition, urologic surgery has changed dramatically. The rapid growth and adoption of minimally invasive techniques and surgical technologies have altered the way we perform most common procedures and, in doing so, have changed the way we train urologists in residency. As a direct result, urologists less frequently perform open surgery and conventional transurethral procedures. Understanding complications of these procedures is perhaps of *greater* importance now because contemporary urologists have less experience with these procedures.

As such, in this fourth edition I have tried to balance the content between contemporary and classic techniques by including more chapters that specifically focus on minimally invasive procedures, laparoscopic surgery, and robotic surgery. Open surgical techniques remain a focus of the book with inclusion of additional chapters on specific procedures such as partial nephrectomy, orthotopic neobladder, and transurethral bladder tumor resection. Classic chapters from the third edition such as transurethral resection of the prostate and perineal prostatectomy have been re-printed as little could be added to the work of the previous authors.

It is my sincere hope that the additional chapters, along with the online case studies and multiple-choice questions, offer expanded utility for the book and a continued positive response among readers in the decade to come.

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June 2009



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Section I

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# NONUROLOGIC COMPLICATIONS OF UROLOGIC SURGERY



