### Principles and Practice of

## Gynecologic Oncology

FIFTH EDITION



Richard R. Barakat Maurie Markman Marcus E. Randall

# PRINCIPLES AND PRACTICE OF GYNECOLOGIC ONCOLOGY

FIFTH EDITION

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This book is dedicated to our families—Catherine Barakat and children Joanna, Richard Jr., and Christian Barakat; Brabham Morgan Randall and children Ken, Morgan, and Marycobb Randall; and Tomes Markman and children Margaret, Jonathan, Timothy, and Elisabeth Markman. By virtue of their patience, good humor, encouragement, and tolerance of our long hours at work, they have each made significant contributions to this book.

### FOREWORD

Stuart Freeman, in charge of production of oncology textbooks at Lippincott Publishers (now Lippincott Williams & Wilkins) approached the three of us-Carlos Perez, Robert Young, and me-in the early 1990s to collaborate in editing a textbook on gynecologic cancer. We met to plan the text in 1992, and 2 years later, in 1994, the first edition was published. With the able guidance of Stuart, we developed several basic principles: (a) The textbook would be multidisciplinary, with the disease chapters authored by a surgeon, a medical oncologist, a radiation oncologist, and a pathologist; (b) the editors would strive to make the textbook a definitive reference that would be written at the level of an expert in surgery, medical oncology, and radiation oncology; (c) the text would be divided into three sections: basic science, modalities of therapy, and the disease chapters, which cover current principles of treatment; (d) we would edit the book in two sessions, each lasting 2 to 3 days, with all the editors sitting at one table reading the same chapter; (e) we would strive to publish an updated edition every 3 years.

Over the next 12 years, we published four editions of the text, the first three under the guidance of Stuart Freeman and the last edition under the guidance of Jonathan Pine. We appreciate the assistance and support that we received from Lippincott Williams & Wilkins throughout. We were, and remain, grateful for the opportunity to develop a close friendship and, most important, we were satisfied that our book was a definitive and valuable text for those physicians who treat

gynecologic cancer.

In the planning for the fourth edition, the three editors agreed that it would be our last edition and that we should select new editors to continue the publication of the text. As a group, we chose Richard Barakat, MD, Maurie Markman, MD, and Marcus Randall, MD, and they worked with us on the preparation of the fourth edition. In this fifth edition of Principles and

Practice of Gynecologic Oncology, our only involvement is to write the Foreword. This edition and the ones to come are the work of Rich, Maurie, and Marc. We are grateful that the current editors have agreed to carry on the text, and we anticipate that this text will be outstanding and uphold the tradition of pre-

senting the state of the art in gynecologic oncology.

The landscape in the management of patients with gynecologic cancer has rapidly evolved in recent years. A vaccine for human papillomavirus (HPV) is being administered worldwide, with the expectation that it will substantially decrease the incidence and mortality of carcinoma of the uterine cervix. All aspects of the diagnosis and treatment of gynecologic cancer have become more complex. Surgical procedures are more radical, and there are many new chemotherapeutic and targeted agents (both cytotoxic and biologic) and new equipment and techniques in radiation oncology. Survival rates for ovarian and cervical cancer have improved, and survival for corpus cancer is stable. In 2007, the 5-year survival for all stages and all races was 45% for ovary, 72% for cervix, and 83% for corpus cancers.

This text continues to be the most comprehensive and up-todate book for the physicians who treat women with gynecologic cancer, and with its multidisciplinary approach still addresses the most important aspects of basic biology, pathology, modalities of

therapy, and therapeutic options by disease site.

As the original editors of this text, we are very pleased with this fifth edition of Principles and Practice of Gynecologic Oncology and congratulate the new editors, Drs. Richard Barakat, Maurie Markman, and Marcus Randall, for their achievement. We are confident they will continue to produce timely and up-to-date editions in the future.

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The publication of the fifth edition of *Principles and Practice of Gynecologic Oncology* marks the completion of the transition to three new editors, Richard Barakat, Maurie Markman, and Marcus Randall. As editors and cancer specialists, we are excited about the fifth edition and are honored to follow in the tradition of excellence established by our three predecessors, William J. Hoskins, MD, Carlos A. Perez, MD, and Robert C. Young, MD, who had worked together on this textbook for over 15 years. Without their guidance and friendship, this seamless transition wouldn't have been possible. We look forward to building on their important contribution to the medical literature.

We remain committed to the multidisciplinary theme of the textbook, with chapters authored by teams consisting of a surgeon, a medical oncologist, a radiation oncologist, and a pathologist. The increasing complexity of all aspects of gynecologic cancer treatment requires this type of approach. As in previous editions, we have rotated approximately 30% of the authors, and all chapters have been either completely rewritten or extensively updated, including the chapters on the three

major disease sites—ovarian, uterine, and cervical cancer—as well as breast cancer. We are certain that this edition contains the most up-to-date information available about the treatment of gynecologic cancers. This textbook was designed for specialists who care for women afflicted with gynecologic cancer, including surgeons, medical oncologists, radiation oncologists, pathologists, and nurses. It also serves as a valuable resource for residents and fellows in training for a career in cancer care.

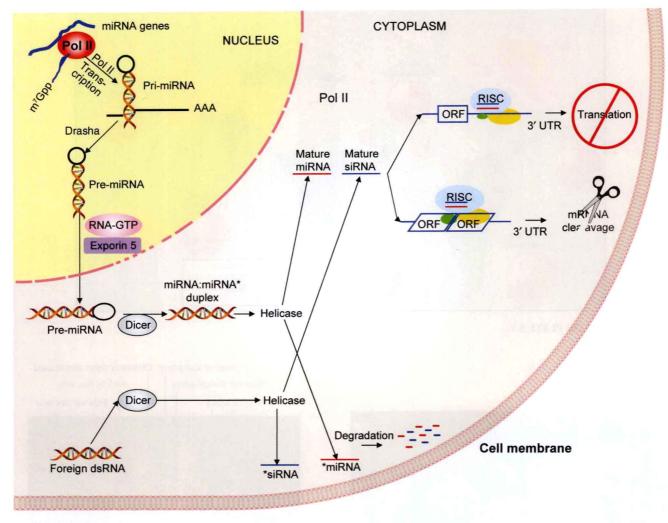
Finally, we wish to thank the readers for their support in the past and look forward to their continued support and advice in the future. We will continually strive to improve the content and quality of this comprehensive textbook. It is our hope that this textbook will play a significant role in developing future treatments to benefit women afflicted with gynecologic cancer.

> Richard Barakat, MD Maurie Markman, MD Marcus Randall, MD

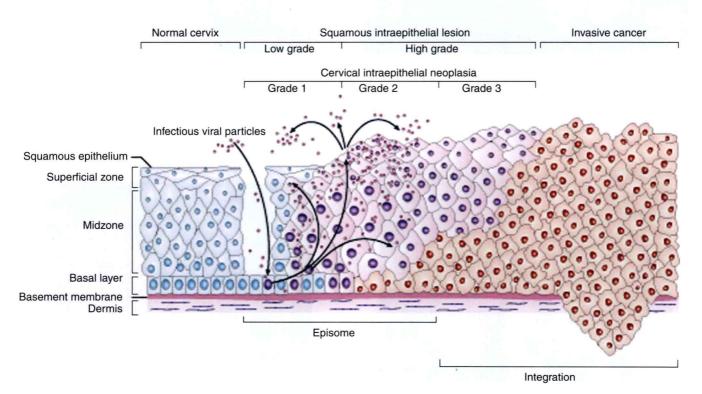
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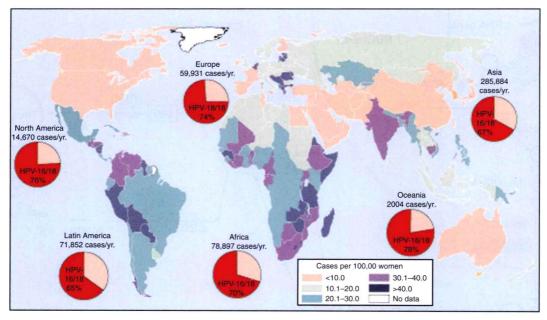
The editors acknowledge the contributions of numerous individuals without whom this book would not have been possible. The talented staff of the publisher, Lippincott Williams & Wilkins, especially Jonathan Pine, senior executive editor; Joyce Murphy, associate director of content; Anne Jacobs, senior managing editor; and Paula Williams, senior project editor, provided invaluable encouragement, direction, and guidance during the creative process and in technical execution. Charu Dutt, senior project manager for International Typesetting and Composition, provided outstanding production services.

From the Gynecology & Breast Services Academic Office, Department of Surgery, Memorial Sloan-Kettering Cancer Center (MSKCC), we acknowledge the invaluable contributions of K. Alexandra MacDonald, senior editor; Jennifer Grady, assistant editor; and Shan-san Wu, assistant editor. Their attention to detail, patience, and communication skills were of the utmost importance throughout the publication process. Our appreciation for all their efforts cannot be adequately expressed, but we hope they know how much we value their contributions.

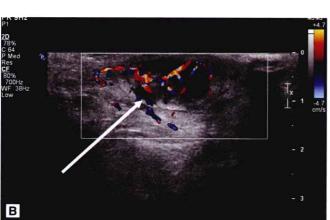


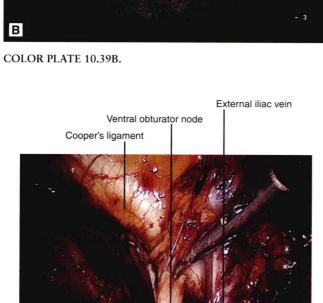
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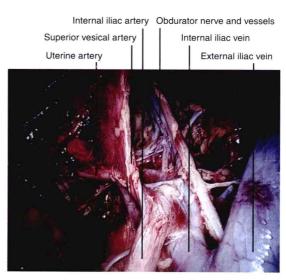


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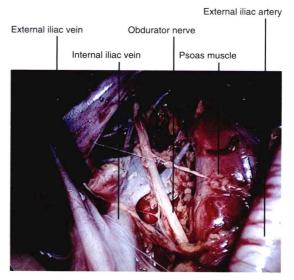




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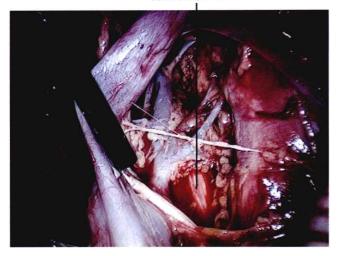


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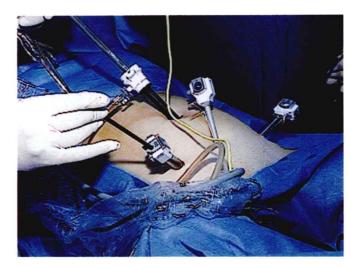


COLOR PLATE 13.4.

Lumbosacral nerve



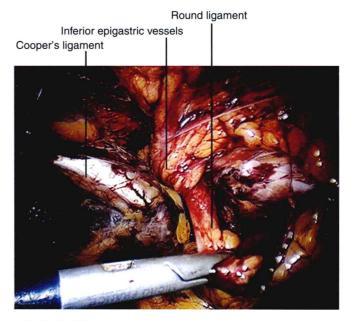
COLOR PLATE 13.5.



COLOR PLATE 13.8.



COLOR PLATE 13.6.



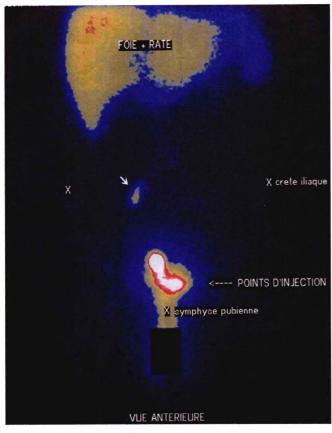
COLOR PLATE 13.9.



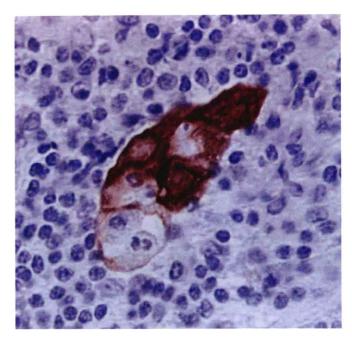
COLOR PLATE 13.7.



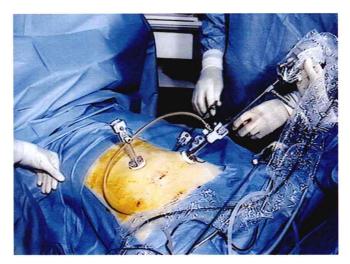
COLOR PLATE 13.10.



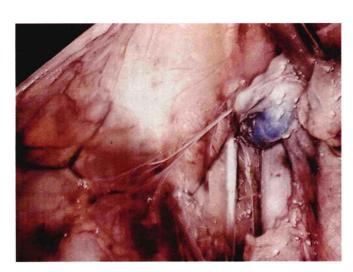
COLOR PLATE 13.11.



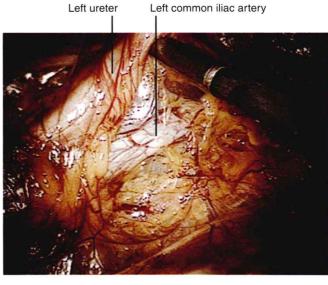
COLOR PLATE 13.14.



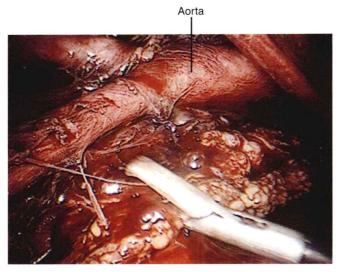
COLOR PLATE 13.15.



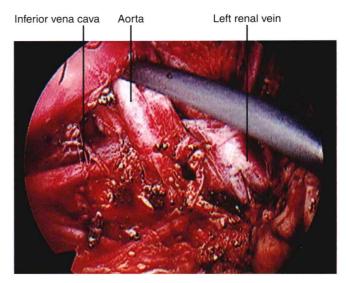
COLOR PLATE 13.12.



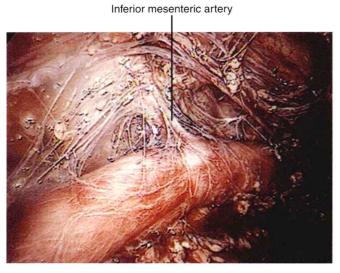
COLOR PLATE 13.16.



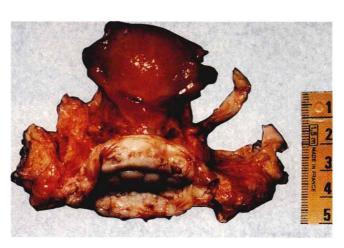
COLOR PLATE 13.17.



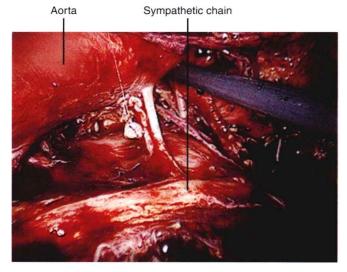
COLOR PLATE 13.20.



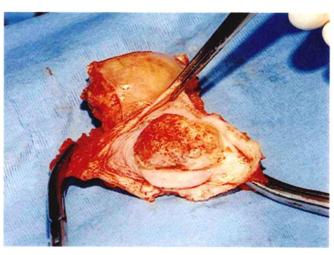
COLOR PLATE 13.18.



COLOR PLATE 13.21.



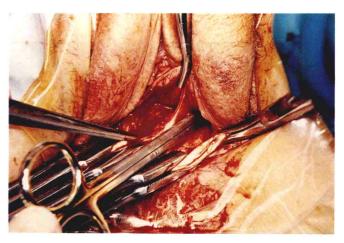
COLOR PLATE 13.19.



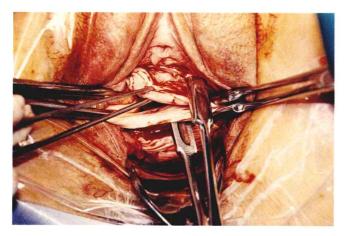
COLOR PLATE 13.22.



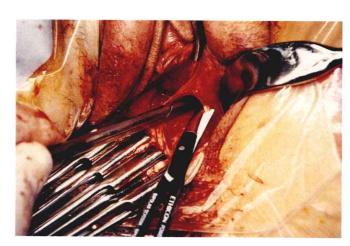
COLOR PLATE 13.23.



COLOR PLATE 13.26.



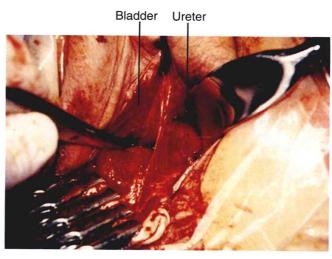
COLOR PLATE 13.24.



COLOR PLATE 13.27.



COLOR PLATE 13.25.



COLOR PLATE 13.28.

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