Ultrasonography in Gynecology
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Edited by

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I would like to dedicate this book
to my sisters Dr Sohair Mitry Rizk (1951–1994) and
Dr Mary Mitry Rizk
for their extraordinary love and support
Botros Rizk
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Preface

This book of ultrasonography in gynecology represents the state-of-the-art in this ever-advancing field in medicine. The authors of every chapter of this book are world-renowned in their respective fields. The book layout and chapters allow the authors to present one of the largest collections of cases in benign and malignant gynecological disease as well as infertility. They take the reader step by step from the basic to the most complicated cases, and the text is rich in ultrasonographic figures rather than a theoretical text of limited value. Ultrasonography in gynecology is recommended reading for every gynecologist, ultrasonographer, radiologist, and infertility specialist.

The book is composed of five sections. The first section describes the techniques of ultrasonography such as three-dimensional ultrasonography, and compares the findings to other imaging techniques such as hysteroscopy and hysterosalpingography. The consents and patient counseling for ultrasonography are clearly described.

The second section covers benign gynecological diseases in great elegance. Polycystic ovarian syndrome, endometriosis and uterine septum are gracefully presented in clearly visualized cases. Pelvic floor ultrasound has become an area of interest that aids the gynecological surgeon in achieving a high precision and success of pelvic floor surgery. Uterine anomalies are presented case by case, comparing hysterosalpingography with hysteroscopy and 2D and 3D ultrasonography. The authors demonstrate that routine hysterosalpingography is inadequate to demonstrate the subtle anomalies, such as small uterine septae, for which hysteroscopy is recommended. The uterine fibroids are covered in three different chapters, one of which is dedicated to uterine artery embolization.

The third section is dedicated to ectopic pregnancy in six different chapters. The first chapter discusses the evaluation and management of ectopic pregnancy, providing tremendous clinical information that enables the ultrasonographer and clinician to evaluate and treat ectopic pregnancy. Interstitial and cesarean scar pregnancies are increasing in frequency. A good array of images helps the clinician to diagnose and manage these cases. Abdominal pregnancies are rare but clearly demonstrated. Heterotopic pregnancies are increasing as a result of assisted reproduction and multiple embryo transfer.

The fourth section is gynecological malignancies. Gestational trophoblastic neoplasia is elegantly presented. Ovarian and endometrial cancer affects a different demographic population, and ultrasound is very valuable in the preoperative assessment of these patients. Ovarian masses are very common in everyday clinical practice and are clearly presented to help make a spot diagnosis.

The fifth section deals with ultrasonography in infertility. The use of ultrasound imaging in onestop fertility diagnosis is of great convenience to infertile couples. Detailed ultrasound assessment before the IVF cycles ensures successful outcome. Assessment of ovarian reserve could be accomplished by hormonal evaluation such as anti-mullerian hormone; however, ultrasonographic assessment of antral follicle count is most predictive of the patient’s response to gonadotropins. Ultrasound monitoring of ovulation induction and transvaginal ultrasonography for oocyte retrieval and embryo transfer is the cornerstone of successful in vitro fertilization cycle. Prediction, prevention and management of hyperstimulation syndrome could be safely accomplished by the expert ultrasonographic evaluation of patients undergoing assisted reproduction. It is possible that in the future self-operated vaginal ultrasound monitoring of follicular growth in assisted reproduction using the Internet could allow the monitoring of patients who do not have daily access to the ART program. Ultrasound-guided fallopian tube catheterization is of tremendous value in the management of tubal factor infertility. The application of ultrasonography to detect multiple pregnancies after ART and congenital anomalies is the basis for successful and safe outcome of pregnancies after ART. Finally, we put in your hands, our dear readers, a clinical text that we hope will be a great addition to your gynecological practice.

The editors would like to thank the authors and ultrasonographers for their most outstanding work. We would also like to thank the staff of Cambridge University Press for their skill and effort in the production of this valuable book.

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