Surgical and Medical Management of Male Infertility

Edited by

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Dramatic advances in the diagnosis and treatment of male infertility allow conception for couples previously considered untreatable. Elucidation of the genetics of male infertility and new tests of sperm function have led to better understanding of the etiologies and prognosis for treatment of the infertile male. The advent of in vitro fertilization combined with intracytoplasmic sperm injection (IVF/ICSI) has revolutionized the treatment of male factor infertility. Although this has allowed gynecologists/reproductive endocrinologists to treat couples with even severe male factor infertility, recent studies have shown that the incidence of testicular cancer and of genetic abnormalities is dramatically higher in infertile men, emphasizing the importance of evaluating the male, even when enough sperm are present for IVF/ICSI. Furthermore, treatment by urologists trained in male infertility can induce sperm production in men and/or extract sperm from men who have zero sperm counts. In addition, urologists trained in male infertility can often provide treatments that upgrade the fertility of infertile men from nothing to candidates for IVF/ICSI, from only IVF/ICSI to intrauterine insemination, and often to naturally conceived pregnancies. The advances in sperm retrieval techniques as well as refinements in the microsurgical management of obstructive azoospermia and varicocele have made pregnancies possible that were unimaginable only a decade ago.

In addition, many conditions associated with infertility, in particular varicocele, have now been shown to be associated with a more rapid decline in testosterone levels compared with age matched men without varicocele. Thus treatment of conditions that are risk factors for infertility not only can help treat infertility, but also treat and prevent androgen deficiency in the aging male.

Finally, treatment of adolescent varicocele has now been shown to restore testicular growth lag and may prevent both future infertility and androgen deficiency, which would be far more cost-effective than treating infertility and androgen deficiency after it occurs. Prior to this volume, there has been no single textbook that comprehensively covers the evaluation, treatment, and prevention of male infertility. The inclusion of a high-quality surgical atlas with live CD-ROM footage makes this book especially valuable and unique.

Each chapter will conclude with a section on “Pearls”. Throughout the volume, the most important points will be in bold face type. We would like to thank our operating room staff, in particular, Margarita Rivera, RN and OR tech Clarence Sidney, who have worked with us for over two decades at New York Presbyterian Hospital Weill Cornell Medical Center and were key to achieving the outstanding results we report in.