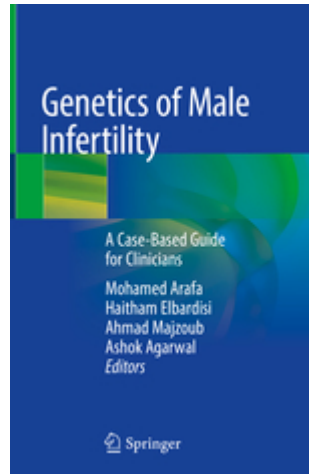


Genetics of Male Infertility
A Case-Based Guide for Clinicians



Editors: Arafa, M., Elbardisi, H., Majzoub, A., Agarwal, A. (Eds.)

A comprehensive and case-based overview of the genetic basis of male infertility, discussing molecular bases and consequences of genetic abnormalities

Presents current clinical tools for diagnosis and management of male genetic abnormalities affecting fertility, including algorithms for patient counseling

An essential guide for reproductive medicine specialists, andrologists, urologists and all clinicians treating infertile patients

This unique, case-based guide provides a thoughtful and comprehensive overview of the genetic basis of male infertility for the practicing clinician. In addition to discussing the molecular foundations of sperm production and the consequences of genetic abnormalities on various stages of sperm development, it examines the clinical aspects of acknowledged genetic disorders and their implications on male fertility. In so doing, it offers the necessary tools required by the clinician for the diagnosis and treatment of infertile men with genetic abnormalities. Moreover, it provides essential algorithms that may aid in counseling patients in the clinic.

The text is arranged in four thematic sections for easy reference. The genetic foundation of male reproduction is presented in part 1, including regulation of sperm production, the structure of sperm chromatin, and spermatogenesis. The impact of genetic abnormalities on male infertility is the subject of part 2, covering sperm defects, mitochondrial function and DNA fragmentation. The clinical case material in part 3 illustrates real-world examples of genetic etiologies and the current diagnostic and therapeutic strategies for conditions such as vas aplasia, cryptorchidism, immotile cilia syndrome, sperm aneuploidy and other challenging scenarios. Casting forward, the fourth and final section presents an overview of future possibilities for management of genetic causes of male infertility, including gene editing. Fully exploring the clinical context of these genetic conditions in a practical manner that appeals to the practicing clinician, Genetics of Male Infertility is an exciting and essential text for reproductive medicine specialists, andrologists, urologists, researchers and all other clinicians treating infertile patients.

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