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Titolo	Varicocele and Male Infertility : A Complete Guide / / edited by Sandro C Esteves, Chak-Lam Cho, Ahmad Majzoub, Ashok Agarwal
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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Part I: Varicocele Origin and Pathology -- Anatomic theories of varicocele origin -- Scrotal hyperthermia, hormonal disturbances, testicular hypoperfusion, and backflow of toxic metabolites in varicocele -- Genetics and epigenetics of varicocele pathophysiology -- Oxidative stress and varicocele pathophysiology -- Proteomic and metabolomic profile of semen and seminal plasma in varicocele -- Experimental varicocele -- Part II: Clinical Evaluation of Varicocele -- Epidemiology of varicocele in pediatric, adolescent and adult populations -- Association between varicocele and infertility -- Varicocele clinical diagnosis and grading -- Imaging and other diagnostic modalities in varicocele diagnosis -- Conventional semen analysis and specialized sperm function tests in patients with varicocele -- Endocrine testing and the association between varicocele and hypogonadism -- Varicocele and orchialgia -- Part III: Therapy of Varicocele -- The evolution and refinement of varicocele treatment: A historical perspective -- Medical therapy in varicocele-related infertility -- Macroscopic surgical techniques for varicocele repair -- Microscopic surgical techniques for varicocele repair -- Laparoscopic techniques for varicocele repair -- Interventional radiology for varicocele treatment -- Robotic assisted microsurgical varicocelectomy -- Effect of varicocele treatment on conventional semen analysis -- Effect of varicocele

treatment on oxidative stress markers and sperm DNA fragmentation -- Effect of varicocele treatment on natural pregnancy outcome -- Effect of varicocele treatment on assisted reproductive technology (ART) pregnancy outcome -- Varicocele and azoospermia -- Prognostic factors for a favorable outcome after varicocele repair in adults with infertility -- Management of recurrent varicocele -- Cost-effectiveness analysis of varicocele repair and assisted reproductive technology -- Management of pediatric and adolescent varicocele -- Part IV: Controversies with Varicocele.-Is varicocele a bilateral disease?- Why is subclinical varicocele considered a different entity?- Why is it that not all men with varicocele are infertile?- Is there a role for testicular biopsy in men with varicocele?- Should bilateral varicocele repair be recommended in cases of a clinical varicocele and contralateral subclinical varicocele?- Is there any role for intraoperative ultrasound during varicocele repair?- Is there any role for indocyanine green angiography in testicular artery preservation during microsurgical subinguinal varicocelectomy?- Should a varicocele be repaired before assisted reproductive technology treatment?- Should a varicocele be repaired in non-infertile patients with hypogonadism?- What should be the ideal control group in clinical trials investigating the role of varicocele and its treatment on fertility outcomes?- Part V: Debate (Pro and Con) over Varicocele -- Should SDF testing be used in men with varicocele?- Should varicocele be repaired before ART?- Should varicocele be repaired in azoospermic infertile men?- Should varicocele be managed surgically or radiographically?- Part VI: Clinical Case Scenarios Involving Varicocele -- Grade 1 varicocele and borderline/normal conventional semen analysis -- Grades 2/3 varicocele and normal conventional semen analysis -- Clinical varicocele and severely abnormal semen analysis in a couple considering ART whose female partner is over 36 years old -- Asymptomatic male with left grade 3 varicocele and 2 children desiring vasectomy with low testosterone -- Symptomatic male with subclinical varicocele found on ultrasound evaluation -- Recurrent grade 2/3 varicocele after microsurgical varicocelectomy and abnormal semen parameters in a couple attempting conception for >3 years -- Grade 2/3 varicocele in a 15-year-old healthy boy with normal testis volume (and normal semen analysis) with a history of varicocele and infertility in his father -- Part VII: Clinical Practice Guidelines for Varicocele -- Adult varicocele diagnosis and treatment -- Pediatric and adolescent varicocele diagnosis and treatment -- Sperm DNA fragmentation testing and varicocele -- Grade of evidence on varicocele treatment -- A 'Strengths-Weakness-Opportunities-Threats' (SWOT) analysis of varicocele-related infertility and its diagnosis and management.

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## Sommario/riassunto

This unique textbook – the first of its kind – presents a thoughtful and comprehensive discussion of the significance of varicocele and its impact on male fertility. This hot topic is covered from a multitude of angles in seven thematic sections: origin and pathophysiology, clinical evaluation, medical and surgical therapy, controversies, pro and con debates, and clinical case scenarios. The scope of varicocele includes basic and transitional research, genetics, diagnostic testing with conventional and advanced molecular biology approaches, hormonal control, interventional therapy and assisted reproductive technology (ART). Repair of varicocele, which can be carried out by various methods, not only alleviates oxidative stress-associated infertility but also prevents and protects against the progressive character of varicocele and its consequent upregulations of systemic oxidative stress. Even with the advances in the understanding of this intriguing disease and consensus on some areas such as diagnosis and

pathophysiology, substantial controversy still exists, in particular concerning the benefits of treatment and to whom treatment should be offered. Additional chapters discuss, in depth, such controversies surrounding the role of varicocele in male infertility and present clinical case scenarios dealing with management of subclinical and clinical varicocele. A series of editorial comments is provided by the editors at the end of selected chapters, containing an objective and concise summary of the information from each chapter. In addition, chapters open up with key points for quick references and conclude with multiple choice questions and answers for immediate review and retention of the rich content. Generously illustrated, Varicocele and Male Infertility: A Complete Guide represents an invaluable tool for medical students in reproductive medicine as well as researchers and clinicians working in the field of infertility(e.g., urologists, gynecologists, reproductive endocrinologists, and embryologists) and is comprised of chapters written by leading and internationally recognized clinicians and scientists with expertise in varicocele, skillfully edited by leaders in the field.

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