



Editorial

Male Infertility: A Review of Key Papers Appearing in the Reproductive Medicine and Andrology Section of the *Journal of Clinical Medicine*

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Male infertility accounts for 30% of infertility cases and its prevalence in the general population approximately ranges between 9 and 15%, according to the available surveys [1]. Male infertility is emerging as an important cause of infertility worldwide; the growing scientific interest in this field of reproductive medicine is demonstrated by the increasing number of scientific papers published by journals dedicated to andrology, urology, and reproductive medicine. Since 2020, the *Journal of Clinical Medicine* has dedicated a novel section to Reproductive Medicine and Andrology, with 136 articles being published to date. This editorial aims to highlight the most prominent contributions to the field of male infertility provided by this section of the journal.

Recent research has improved our understanding of the sperm contribution to fertilization and embryo development, which goes well beyond the simple provision of the paternal haploid genome to the oocyte. Chiocciarelli and coworkers provided an in-dept review of the contribution of histone post-translational modifications (PTMs) to key spermatogenic events, such as the self-renewal and commitment of spermatogonia, meiotic recombination, chromatin remodeling, as well as of their role in sperm function and embryo development. Since many histone PTMs remain associated with the paternal genome during de novo chromatin formation occurring after fertilization, the authors provide some intriguing hypotheses to explain how sperm histones may play a key role for a proper embryonic reprogramming and transgenerational epigenetic inheritance. The authors also reviewed the available evidence on the impact of circular RNAs (circRNAs) on sperm quality and embryo development [2].

Azoospermia due to spermatogenic dysfunction, also termed non-obstructive azoospermia (NOA), is the most severe form of male infertility, affecting about 1% of the male population and 10–15% of the infertile men. A Special Issue in this journal ([mdpi.com/journal/jcm/special_issues/NOA_Management](https://www.mdpi.com/journal/jcm/special_issues/NOA_Management)) was dedicated to this argument. As more extensively detailed in the accompanying editorial [3], the Special Issue was built on the contributions of opinion leaders such as Peter N. Schlegel and his group, who illustrated how to manage patients with NOA and optimize the success of mTESE [4], as well as the reproductive chances of men with NOA according to the underlying etiologies [5]; Sandro Esteves and coworkers, who provided a detailed explanation on how to discriminate the two forms of azoospermia, obstructive vs. non-obstructive [6]; Krausz and Cioppi, who reviewed the most common genetic abnormalities in men with NOA and their possible impact on their general and reproductive health, as well as on their offspring health [7]; Goulis and colleagues, who showed how the eventual post-surgical hypogonadism may depend upon some clinical factors, including etiology of NOA, the number of previous surgical attempts, and testicular volume [8]; Aydos, who provided an in-depth review of the available procedures to select testicular sperm for ICSI [9]; Smith, who explored the possible application of microfluidic technology to isolation of sperm from testicular samples [10]; and our group, who proposed a detailed description of the microTESE surgical technique [11], reviewed



Citation: Caroppo, E.; Colpi, G.M. Male Infertility: A Review of Key Papers Appearing in the Reproductive Medicine and Andrology Section of the *Journal of Clinical Medicine*. *J. Clin. Med.* **2023**, *12*, 2366. <https://doi.org/10.3390/jcm12062366>

Received: 6 March 2023

Accepted: 13 March 2023

Published: 19 March 2023



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Research Papers In Fertitlity And Reproductive Medicine

John E. Turrentine



Research Papers In Fertiltity And Reproductive Medicine:

Clinical Infertility and in Vitro Fertilization Botros RMB Rizk,Hassan N Sallam,2012 *The Challenge of Reproductive Medicine at Catholic Universities* Ivo Brosens,I. A. Brosens,2006 New technologies developing at an unbelievable pace have profoundly changed many areas of reproductive medicine including fertility control infertility treatment embryology prenatal diagnosis and fetal surgery These fields of modern reproductive medicine are all flourishing at Catholic universities in the Low Countries Belgium and Holland However contraceptive techniques assisted reproductive technologies preimplantation genetic diagnosis and embryonic stem cell research are deeply dividing Catholic universities around the world Are Catholic universities in the Low Countries heading silently towards a schism with Rome Or is modern reproductive medicine based on personalist ethics and practiced at progressive Catholic universities compatible with the Catholic doctrine Studies on Men's Health and Fertility Ashok Agarwal,Robert John Aitken,Juan G Alvarez,2012-03-17 Studies on Men s Health and Fertility provides a comprehensive series of up to the minute reviews addressing the role of oxidative stress in the aetiology of reproductive pathologies in the male This volume represents by far the most detailed authoritative review of the field that has been produced to date The text encompasses the basic science of reactive oxygen species ROS production by mammalian spermatozoa the way in which these highly reactive molecules are processed by the germ line and the physiological significance of this redox activity in the generation of a functional gamete The factors responsible for perturbing the delicate balance between physiological redox signaling on the one hand and oxidative stress on the other are also extensively reviewed and some of the first clues concerning the underlying mechanisms age heat infection cryostorage aberrant lipid metabolism clearly identified From a clinical perspective there are chapters setting out the methods we should be using to diagnose oxidative stress in the male germ line a clinical perspective on the aetiology of this condition and detailed considerations of the most suitable means of ameliorating such stress from a therapeutic point of view Studies on Men s Health and Fertility is intended to provide clinicians and scientists with a snap shot of the current status of this exciting rapidly moving field The book will be of value to clinicians interested in strategies for the management of oxidative stress in their infertility patients and scientists wishing to understand the molecular mechanisms underpinning the generation of ROS by these cells and its pathophysiological significance It was not so long ago that the ability of spermatozoa to generate ROS was a hotly disputed topic With the publication of this book such doubts can finally be laid to rest There is now no doubt that these cells actively generate ROS that oxidative stress is a major contributor to defects in male reproductive health and that the successful clinical management of this condition depends on developing a deeper understanding of the underlying molecular mechanisms In this quest Studies on Men s Health and Fertility will be seen as a clear and important milestone *Current Studies in Obstetrics and Gynaecology I* Fulya ÇAĞLI,Mehmet AK,2024-12-22

Research Awards Index ,1987 **Exercise and Human Reproduction** Diana Vaamonde,Stefan S du Plessis,Ashok

Agarwal,2016-03-07 Providing a comprehensive review of the interactions between exercise and human reproduction this unique text focuses on both the positive and negative consequences of sport and physical activity on male and female fertility and infertility and the biological mechanisms and processes behind them Beginning with a review of the structure and function of the male and female reproductive systems as well as fertilization and gestation the discussion then turns to the physiology and endocrinology of sport and exercise which is further elaborated in subsequent chapters on the impact of physical activity hormonal changes pathologies and consequences of drug use for active men and women Additional chapters address related topics such as the impact of sport on young athletes and developing reproductive potential physical activity and pregnancy the use of oral contraceptives in athletes oxidative stress and the impact of nutritional deficiencies on athletes fertility with a final chapter providing recommendations and therapeutic guidelines for exercise related reproductive disorders Covering everything from the fundamental principles of sports physiology and human reproductive potential to the interaction between physical exercise and the endocrinology of the reproductive system Exercise and Human Reproduction is an authoritative resource for helping clinicians understand how the reproductive system adapts to activity and exercise and offers strategies to avoid potential harm to human reproduction

Current Catalog National Library of Medicine

(U.S.),1993 First multi year cumulation covers six years 1965 70

Fertility, Pregnancy, and Wellness Diana

Vaamonde,Anthony C. Hackney,Juan Manuel Garcia-Manso,2022-02-09 Fertility Pregnancy and Wellness is designed to bridge science and a more holistic approach to health and wellness in particular dealing with female male fertility and the gestational process Couples seeking to solve fertility issues for different reasons whether failed assisted reproductive techniques or the emotional impact they entail economic or moral reasons are demanding more natural ways of improving fertility This book explores the shift in paradigm from just using medications which in the reproductive field can be very expensive and not accessible to the entire population to using lifestyle modifications and emotional support as adjunctive medicine therapies This must have reference brings together the current knowledge highlighting the gaps and delivers an important resource for various specialists and practitioners Offers insights from scientific and holistic methods providing the available scientific evidence for or against different holistic approaches aimed at improving fertility health and wellness Bridges the more peripheral yet critical and multidisciplinary considerations in fertility infertility pregnancy and wellness Includes clear concise and meaningful summary conclusion sections within each chapter

Research Advances in Male

Fertility: New Horizons for Investigating Human Testicular Function and Development of Clinical Fertility

Preservation Approaches Jan-Bernd Stukenborg,Swati Sharma,Stefan Schlatt,2022-11-11 *Sperm Chromatin* Armand

Zini,Ashok Agarwal,2011-08-04 Sperm DNA damage is common and has been associated with reduced rates of conception impaired embryonic development and increased risk of miscarriage Although the exact causes of sperm DNA damage are unknown it is clear that infertile men possess substantially higher levels of sperm DNA damage than do fertile men Written

by leading internationally renowned clinicians and basic scientists with expertise in sperm DNA Sperm Chromatin Biological and Clinical Applications in Male Infertility and Assisted Reproduction provides readers with a thoughtful and comprehensive review of the biological and clinical significance of sperm DNA damage The work covers the fundamental principles of sperm chromatin architecture and function the proposed modes of DNA damage and repair the tests of sperm DNA damage the clinical aspects of DNA damage and the impact of DNA damage on reproductive outcome Unlike any other title on the topic Sperm Chromatin Biological and Clinical Applications in Male Infertility and Assisted Reproduction is an invaluable addition to the literature and will serve as an indispensable resource for basic scientists with an interest in sperm biology and for urologists gynecologists reproductive endocrinologists and embryologists working in the field of infertility **Infertility in Practice** Adam Henry Balen,Howard S. Jacobs,1997 This book is written for the general gynaecologist It gives practical instructions with clear illustrations in the non specialist management of infertility This source provides up to date information for a field of study which is undergoing rapid technological change It explains basic investigations to exclude obvious causes of infertility hormones laparoscopy and basic treatment ovulation induction The book also describes the techniques of assisted conception available in specialist centers demystifying an acronym ridden and fast moving subject for the benefit of the general gynaecologist who may need to refer patients for specialist treatment Because infertility is a sensitive area the book addresses counselling and support *National Library of Medicine Current Catalog* National Library of Medicine (U.S.),1984 *Male Infertility - E-Book* Ashok Agarwal,Florence Boitrelle,Panagiotis Drakopoulos,Hassan Nooman Sallam,Ramadan Saleh,2023-11-29 Despite the fact that about half of infertility problems stem from male factors gynecologists are often the first health care providers to perform the initial assessment of the infertile couple For this reason it is critical that gynecologists and reproductive medicine specialists remain up to date on the primary conditions that cause male infertility as well as current diagnostic tools and treatment options of both natural and assisted conception From diagnosis through treatment *Male Infertility Management of Infertile Men in Reproductive Medicine* offers expert straightforward guidance on the pathophysiology and management of male infertility for clinicians who assist couples early in the process of trying to conceive Covers diagnostic aspects of male infertility clinical laboratory and imaging methods as well as various therapeutic options including classical and advanced surgical procedures Discusses intrauterine insemination conventional in vitro fertilization intracytoplasmic sperm injection sperm cryopreservation preimplantation genetic testing and more Begins each chapter with key points and ends with clinical scenarios of real life problems and their solutions Shares the knowledge and expertise of global experts in the field Any additional digital ancillary content may publish up to 6 weeks following the publication date *The Complete Guide to Fertility Awareness* Jane Knight,2016-11-03 Fertility Awareness is key to understanding sexual and reproductive health at all life stages It can be used to either plan or avoid pregnancy Fertility Awareness Methods FAMs are highly effective when motivated couples are taught by trained

practitioners These methods are in demand for ecological medical cultural religious and moral reasons The ability to control fertility naturally is a lifestyle choice The Complete Guide to Fertility Awareness provides the science and methodology suitable for health professionals and a general audience It covers reproductive physiology and the fertility indicators temperature cervical secretions and cycle length calculations It explores ways to optimise conception and to manage conception delays Case studies and self assessment exercises are included throughout The book addresses the scientific credibility of new technologies including fertility apps home test kits monitors and devices The Complete Guide to Fertility Awareness offers evidence based information for general practitioners practice nurses school nurses midwives sexual health doctors and nurses a unique perspective on subfertility for gynaecologists and fertility nurses an authoritative source of reference for medical nursing and midwifery students a straightforward and practical reference for new and experienced FAM users the core text for the FertilityUK Advanced Skills Course in Fertility Awareness

List of Journals Indexed in Index Medicus National Library of Medicine (U.S.),1979 Issues for 1977 1979 include also Special List journals being indexed in cooperation with other institutions Citations from these journals appear in other MEDLARS bibliographies and in MEDLING but not in Index medicus

Ethical Issues in Human Stem Cell Research: Commissioned papers United States. National Bioethics Advisory Commission,2000

Clinical Protocols in Obstetrics and Gynecology John E. Turrentine,2008-01-28 Expanded and updated the new edition of the bestselling Clinical Protocols in Obstetrics and Gynecology is the definitive quick reference for use in office practice and hospital settings With information drawn from ACOG technical bulletins OB GYN publications articles textbooks computer sources and the author s vast personal experience outl

Local Babies, Global Science Marcia C. Inhorn,2012-11-12 In the late 1990s Egypt experienced a boom period in in vitro fertilization IVF technology and now boasts more IVF clinics than neighboring Israel In this book Marcia Inhorn writes of her fieldwork among affluent elite couples who sought in vitro fertilization in Egypt a country which is not only at the forefront of IVF technology in the Middle East but also a center of Islamic education in the region Inhorn examines the gender scientific religious and cultural ramifications of the transfer of IVF technology from Euro American points of origin to Egypt showing how cultural ideas reshape the use of this technology and in turn how the technology is reshaping cultural ideas in Egypt

Public Health Reports ,1999

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