

FROM THE EDITOR

1 Thank you to our reviewers

INKLINGS

5 Exploring new frontiers in the management of polycystic ovary syndrome associated obesity

A. Dokras and R. Norman
Philadelphia, Pennsylvania and Adelaide, South Australia, Australia

VIEWS AND REVIEWS

8 Ovarian stimulation 2.0

D. de Ziegler and S. Sokteang
Phnom Penh, Kingdom of Cambodia

Ovarian stimulation for assisted reproductive technology has seen dramatic changes in the past decade with a flurry of new protocols. The current review series addresses these novelties.

10 Ovarian stimulation protocols: impact on oocyte and endometrial quality and function

A. J. Harvey, B. E. Willson, E. S. Surrey, and D. K. Gardner
East Melbourne and Parkville, Victoria, Australia; Los Angeles, California; and Lone Tree, Colorado

Stimulation impacts oocyte genetic stability and follicular metabolism and transcription. Stimulation alters endometrial remodeling, receptivity and transcription. Immune regulation may be a mechanism impacting both oocyte and endometrial quality.

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Programming the onset of ovarian stimulation: from early follicular phase start to oral contraceptive pill, to luteal phase E2, Duostim, and random start oral contraceptive protocols

S. Sokteang, P. Ou, C. Tran, and D. de Ziegler
Phnom Penh, Kingdom of Cambodia

Ovarian stimulation for assisted reproductive technology was classically initiated on cycles 2–4. Today, several alternatives exist for programming ovarian stimulation or even contemplating random start stimulations.

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Luteinizing hormone's critical role in ovarian stimulation

J. P. Toner and P. Pirtea
Atlanta, Georgia and Paris, France

The role of LH has gained significant attention, being seen as beneficial in specific patient populations beyond those with hypogonadotropism. This article explores the evidence supporting the incorporation of LH into OS protocols.

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The role of letrozole in in vitro fertilization treatment: new remedy or old mirage?

N. Bülow and N. Macklon
Copenhagen, Denmark and London, United Kingdom

Letrozole is established as an ovulation induction agent, but recent randomized studies have highlighted its potential as cotreatment to ovarian stimulation for IVF to improve response and luteal phase quality.


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SEMINAL CONTRIBUTIONS

- 50**  **Preimplantation genetic testing for aneuploidy is associated with reduced live birth rates in fresh but not frozen donor oocyte in vitro fertilization cycles: an analysis of 18,562 donor cycles reported to Society for Assisted Reproductive Technology Clinic Outcome Reporting System**

J. A. Gingold, A. Kucherov, H. Wu, M. Fazzari, H. Lieman, G. D. Ball, K. Doody, and S. Jindal
Bronx, Hartsdale, and New York, New York; Norwalk, Connecticut; Seattle, Washington; Woodbury, Minnesota; and Bedford, Texas

Preimplantation genetic testing for aneuploidy was associated with decreased first-transfer and cumulative live birth rates in fresh donor oocyte cycles, but had no clear effect in frozen-thawed donor oocyte cycles.


REFLECTIONS

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Wynnewood, Pennsylvania and Atlanta, Georgia
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W. H. Kutteh, R. S. Papas, and E. M. Dahdouh
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New York, New York

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M. G. Kroeger and J. D. Kresowik
Urbana, Illinois and Iowa City, Iowa
- 75** **Scoping out follicles: simultaneous laparoscopic ovarian cystectomy and oocyte retrieval for fertility preservation**
M. Russo, S. R. Lindheim, and N. Pereira
Toronto, Ontario, Canada and Dallas, Texas

ORIGINAL ARTICLES

ANDROLOGY

- 77**  **Sperm concentration remains stable among fertile American men: a systematic review and meta-analysis**
K. Lewis, R. Cannarella, F. Liu, B. Roth, L. Bushweller, J. Millot, S. Kuribayashi, S. Kuroda, D. Aguilar Palacios, S. C. Vij, J. Cullen, and S. D. Lundy
Cleveland, Ohio and Houston, Texas


This meta-analysis found no significant change in sperm concentration among U.S. men, suggesting stable semen quality and easing concerns about a future male infertility crisis.
- 88** **Intensity and type of physical activity and semen quality in healthy young men**
F. Donato, M. Rota, E. Ceretti, G. C. Viviana Viola, M. Marullo, D. Zani, S. Lorenzetti, and L. Montano, FAST study group
Brescia, Rome and Salerno, Italy

Positive associations of sperm total motility and normal morphology with medium levels of physical activity, and negative associations with walking and vigorous-intensity activity, with an inverse U-shape relationship.


ASSISTED REPRODUCTION

- 97 High sperm deoxyribonucleic acid fragmentation index is associated with an increased risk of preeclampsia following assisted reproduction treatment**
A. Stenqvist, M. Bungum, A. B. Pinborg, J. Bogstad, A. L. Englund, M. L. Grøndahl, A. Zedeler, S. R. Hansson, and A. Giwercman
Malmö, Sweden and Copenhagen, Koege. Herlev, and Hvidovre, Denmark

High levels of deoxyribonucleic acid fragmentation index were associated with preterm birth and preeclampsia in a cohort of infertile couples undergoing assisted reproduction.

-  **105 Preovulation body mass index and pregnancy after first frozen embryo transfer in patients with polycystic ovary syndrome and insulin resistance**
H. Liang, N. Li, and R. Li
Nanning City, People's Republic of China

In polycystic ovary syndrome women with insulin resistance, body mass index is negatively associated with embryo implantation rate, biochemical pregnancy rate, clinical pregnancy rate, and ongoing pregnancy rate.

-  **115 A retrospective comparison of the impact of industry payments on assisted reproductive technology practice and outcomes**
M. Jain, M. Blanco-Briandel, H. Wu, J. Gingold, and H. Lieman
New York and Bronx, New York

A retrospective cohort investigating industry payments found no impact on ART outcomes, but found increased industry payment rates at large centers were associated with increased PGT and FET utilization.

EARLY PREGNANCY


-  **121 Preimplantation genetic testing for aneuploidy in unexplained recurrent pregnancy loss: a systematic review and meta-analysis**
S. Mumusoglu, S. B. Telek, and B. Ata
Ankara and Istanbul, Turkiye; New Haven, Connecticut; and Dubai, United Arab Emirates

Low-quality evidence suggests that preimplantation genetic testing for aneuploidy decreases clinical pregnancy loss rate in unexplained recurrent pregnancy loss patients and enhances live birth rate per transfer and patient.


ENDOMETRIOSIS

- 137 Endometriosis and risk of adverse pregnancy outcomes: a retrospective multicenter cohort study**
F. Vendittelli, C. Barasinski, O. Rivière, N. Bourdel, and X. Fritel
Clermont-Ferrand, Lyon, and Poitiers, France
Pregnant women with vs. without diagnosed endometriosis were at higher risk of preterm birth before 37 and 33 weeks and of adverse pregnancy outcomes.

FERTILITY PRESERVATION

-  **148 Initiation and outcomes of women pursuing planned fertility preservation**
D. Boedeker, M. Brolinson, A. C. Campedelli, R. Yu, S. Raiciulescu, K. Devine, M. Hill, A. DeCherney, and T. Spitzer
Bethesda and Rockville, Maryland

Few women who choose planned oocyte cryopreservation meet their recommended oocyte yield goal. Ethnicity and socioeconomic factors are associated with decisions to pursue and continue fertility preservation cycles.

-  **156 First successful ovarian cortex allotransplant to a Turner syndrome patient requiring immunosuppression: wide implications**
S. J. Silber, S. Goldsmith, B. Rubinoff, E. Kelly, R. D. Santos, A. Melo, and D. Brennan
St. Louis, Missouri; Jerusalem, Israel; and Baltimore, Maryland

Successful ovary allotransplantation requiring a safe immunosuppression protocol allowed spontaneous pregnancy with no need for hormone replacement. Furthermore, ovarian cortical grafts may survive on diffusion alone, and not require revascularization.

REPRODUCTIVE SURGERY

- 164 Pregnancy and delivery outcomes after abdominal vs. laparoscopic myomectomy: an evaluation of an American population database**
P. Ginod, A. Badeghiesh, H. Baghlaf, and M. H. Dahan
Montréal, Québec, Canada; Dijon, France; Rabigh, Saudi Arabia; and Tabuk, Saudi Arabia

Postlaparoscopic myomectomies, women have higher risks of bleeding, uterine rupture, and resultant complications, than after abdominal myomectomies, because of differences in delivery modes and should be monitored as high-risk deliveries.

RESEARCH LETTERS

- 173 Reproductive outcomes following insemination in same-sex female couples, unpartnered female patients, and heterosexual couples**
Q. D. Heyward, D. A. Vaughan, L. E. Dodge, D. Duvall Jr., D. Sakkas, R. Sabbagh, A. K. Korkidakis, and A. S. Penzias
Waltham and Boston, Massachusetts
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- 179 Examining the effects of a large-scale merger on in vitro fertilization outcomes and patient satisfaction in fertility practices**
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VIDEOS

- 182 Laparoscopic salpingostomy for two types of hydrosalpinx: a step-by-step video tutorial**
J. Lyu, D. Wei, and C. Zhao
Chongqing, People's Republic of China
This video article illustrates laparoscopic salpingostomy approach for two types of hydrosalpinx, emphasizing various reproductive surgical techniques.
- 185 Combined removal of ovarian teratoma and oocyte retrieval by laparoscopic surgery under regional anesthesia**
C. Alviggi, G. G. Iorio, P. Serafino, M. Dell'Aquila, G. Bifulco, and P. Giampaolino
Naples, Italy
Simultaneous laparoscopic approach for teratoma removal and oocyte cryopreservation should be considered a fertility preservation strategy when an ovarian neof ormation does not allow visualization of growing follicles by ultrasound.

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Shanghai, People's Republic of China
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- 197 A nonhormonal target for endometriosis to explore**
R. Orellana-Walden and M. E. Cortés
Santiago, Chile



: Connects to Video Article



: Article is only available online



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Cover image: This watercolor rendering of a human oocyte was painted by reproductive endocrinologist, physician advocate, and ASRM member, Alicia Y. Christy M.D. Dr. Christy's artwork has appeared in a number of medical journals. Her blastocyst image was the cover artwork for the inaugural issue of *F&S Science*. One of her watercolor portraits will be featured in an upcoming issue of *Obstetrics and Gynecology*.