MEFS NEWSLETTER

Our Annual Meeting's Success in Istanbul

The scientific program of the MEFS this year was notably enriched, featuring a total of 67 lectures. This comprehensive agenda included contributions from 26 international non-regional speakers renowned in the field. This blend of expertise and perspectives from around the globe enriched the learning experience of the participants.

The two-days program prominently featured sessions on the evolving practices, ongoing debates, and innovative strategies in reproductive medicine. The carefully curated topics provided a comprehensive insight into the complexities and advancements within the field.

NEWS BITES

MEFS Precongress at ESHRE and ASRM

MEFS contributed to the pre-congress scientific programs of ESHRE and ASRM 2023, about "ART Access for All: A Value-Based Analysis," and "Improving ART affordability and access without compromising outcome", aimed at enhancing global accessibility to ART.

MEFS 2024 in Doha, Qatar

The upcoming MEFS 2024 conference is scheduled for 21-23 November 2024, set in the vibrant city of Doha. Be sure to register and plan your trip

Partnerships Formed: ASRM–MEFS Journal Club Activity

The first journal club activity between MEFS and ASRM marks a significant collaboration in the exchange of knowledge and research in reproductive medicine.

Exchange lectures with international societies were prominently featured, including the American Society for Reproductive Medicine (ASRM), the European Society for Human Reproduction and Embryology (ESHRE), Latin-American Association of Reproductive Medicine (ALMER) Exchange Lecture and the Mexican Society for Reproductive Medicine Exchange Lecture. Additionally, the program included the GLOBAL JOURNAL CLUB in collaboration with Fertility & Sterility, disseminated live online. These segments highlight the ongoing collaborations and integration of the Middle East Fertility Society (MEFS) with international professional societies, showcasing a commitment to global engagement

As a yearly ritual, two scientific research projects from our region have won the prestigious Prof Samir Abbas Award Paper. This recognition encourages further investigation and development of research in our region, highlighting the commitment of the society to excellence and innovation in the field of reproductive health.

Day 1

On Day 1, the program opened with an intriguing keynote lecture that delved into the validity and shortcomings of Randomized Controlled Trials (RCTs), sparking a thought-provoking discussion on the methodologies behind clinical research. Later in the day, a critical appraisal of IVF/ICSI add-ons presented a thorough examination of the evidence supporting various assisted reproduction techniques, highlighting the importance of evidence-based practices. The day also featured an in-depth look into the dilemma of Recurrent Implantation Failure (RIF), its existence and management, exploring the controversies surrounding its definition and treatment approaches. Following this, a session on ASRM's practice guidance: how they are developed, offered insights into the rigorous process behind the development of guidelines by the American Society for Reproductive Medicine. The day concluded with the ASRM/Fertility and Sterility Journal Club discussion, focusing on the latest consensus on RIF, facilitating an engaging exchange on recent findings and perspectives in the field

Highlights from @MEFS2023

Day 2

Day 2 of the congress kicked off with sessions dedicated to innovations in reproductive medicine, highlighting the role of stem cells and the impact of genomics. As the day progressed, discussions shifted to new strategies for improving reproductive outcomes, showcasing the latest advancements in the field. The day featured a noteworthy ASRM exchange lecture on PGT-P (polygenic risk scoring), shedding light on its implications for personalized medicine in fertility treatments. An engaging ESHRE exchange session delved into tissue engineering and its burgeoning potential in reproduction, highlighting groundbreaking approaches to overcoming reproductive challenges. The effectiveness of Embryo Assessment Tools was also thoroughly discussed, emphasizing technological advancements in optimizing IVF success rates. Day 2 concluded with two oral presentation sessions that showcased regional research, highlighting significant contributions from our region to the global fertility landscape and fostering a sense of community among regional researchers.

MEFS @ESHRE2023 @ASRM2023

Two innovative pre-congress sessions for the MEFS were presented at major international conferences, ESHRE 2023 in Copenhagen and ASRM in New Orleans, focusing on enhancing global access to ART. The program, "ART Access for All: A Value-Based Analysis," presented at ASRM and, "Improving ART affordability and access without compromising outcome" presented at ESHRE, delved into strategies for reducing the cost of ART procedures while maintaining high success rates, through a detailed value-based analysis. These sessions underscored MEFS's commitment to addressing key challenges in reproductive medicine and fostering global discussions on improving ART accessibility and affordability.

Furthermore, the MEFS Embryology Special Interest Group showcased their ongoing research efforts at ESHRE 2023 through a compelling poster presentation. This presentation underscores the active involvement of embryologists in our region in research projects closely related to their profession. The numerous peer-reviewed publications produced by this group attest to the rigorous research standards and the significant contributions they are making to the global body of knowledge in embryology.

July 7, 2024 :**MEFS precongress course 15;** European Society for Human Reproduction and Embryology **(ESHRE) 2024:** *Eight innovative interventions to improve ART outcomes: Promising or sobering facts?*; Amsterdam, The Netherlands

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November 21-23, 2024: **MEFS 2024**; Doha, Qatar

Nuggets of Research

- **Good practice recommendations on add-ons in reproductive medicine:**
- **Recommendations from the 2023 International Evidence-based Guideline for the Assessment and Management of Polycystic Ovary Syndrome**
- **Evidence-based guideline: unexplained infertility**
- **CLINICAL MANAGEMENT OF MOSAIC RESULTS FROM PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY OF BLASTOCYSTS: A COMMITTEE OPINION (2023)**
- **ESHRE good practice recommendations on recurrent implantation failure**

Curated from MEFS journal

- **The dilemma of the trigger timing in IVF: a review**
- **Revisiting the predictability of follicular fluid leptin and related adiposity measures for live birth in women scheduled for ICSI cycles: a prospective cohort study**
- **The randomized clinical trial trustworthiness crisis**
- **Update on obesity and assisted reproductive technology**
- **Association between ambient particulate matter and semen quality parameters: a systematic review and meta-analysis**

Middle East Fertility Society Journal

Springer

Technology

Recent developments in AI-based Clinical Decision Support Systems (CDSS) are designed to assist professionals in making informed decisions. A machine learning (ML) algorithm has been developed to analyze patient data, tailoring stimulation protocols based on individual needs. This algorithm demonstrated high accuracy in decisions related to treatment continuation, triggers, oocyte retrieval scheduling, and more. The use of AI allows for predicting IVF outcomes, with models estimating the likelihood of clinical pregnancy and live birth. Various studies showcase the effectiveness of different AI algorithms in predicting outcomes based on patient demographics and clinical cycle data.

Additionally, AI finds applications in optimizing ovarian stimulation treatment decisions, including the prediction of gonadotropin dosages and the choice of stimulation protocols. The potential of AI can help streamline clinic workflows, improve scheduling, and enhance the efficiency of IVF processes. The importance of AI in follicular monitoring is emphasized, with AI models providing accurate assessments of follicle sizes, contributing to more efficient and cost-effective treatment cycles. It is proposed that AI may play a crucial role in transforming follicular monitoring by enabling at-home monitoring systems.The AI-assisted decision-making process for trigger shots to induce oocyte maturation demonstrates the potential for AI to optimize the timing of trigger shots and improve clinical outcomes.

In summary, there are multifaceted applications of AI in various stages of the IVF process, ranging from treatment personalization and outcome prediction to dose selection, scheduling optimization, and trigger shot decision-making. The potential benefits encompass increased accuracy, efficiency, and personalized care in reproductive medicine.

Read more: _Applications of artificial intelligence in ovarian stimulation: a tool for improving efficiency and outcomes_

Evidently _- Cochrane curated content_

The recent Cochrane review by Sunkara et al. aims to assess the effectiveness and safety of IVF compared to expectant management, unstimulated IUI, and IUI with ovarian stimulation using gonadotropins, clomiphene citrate (CC), or letrozole in enhancing pregnancy outcomes. The findings suggest that IVF may lead to an improvement in live birth rates (LBR) when compared to unstimulated IUI. However, the review emphasizes the need for caution in interpreting the results due to the overall low quality of evidence available. While the study sheds light on the potential benefits of IVF over certain assisted reproductive techniques, it underscores the importance of further research to establish more robust conclusions regarding the comparative effectiveness and safety of these fertility treatments.

Read more: In vitro fertilisation for unexplained subfertility