...The Newsletter of The PCOS Society of India

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Welcoming Our New Members....

Patron Members

Dr. Bhawna Puri  
Gynaecologist

Dr. Farhat Jabeen  
Gynaecologist

Dr. Smriti Agrawal  
Gynaecologist

Dr. Sharvil Gadve  
Endocrinologist

Dr. Parampreet Kaur Ghuman  
Gynaecologist

Dr. Jayati Dureja  
Gynaecologist

Life Members

Dr. Deepti Jain  
Gynaecologist

Dr. Varsha Mahajan  
Gynaecologist

Dr. Rachna Dubey  
Gynaecologist

Dr. Bhagymala Chalisani  
Gynaecologist

Dr. Jayashree Ruge  
Gynaecologist

Dr. Yashvita Dalia  
Gynaecologist

Dr. Meenu Deswal  
Gynaecologist

Dr. Pratibha Singh  
Gynaecologist

Dr. Kasturi Donimath  
Gynaecologist

Dr. Anjali Joshi  
Endocrinologist

Dr. Priyanka Kosuru  
Endocrinologist

Dr. Pranab Parmanik  
Endocrinologist

Dr. Piyali Bhaduri  
Endocrinologist

Dr. Sharoja Gollapalli  
Endocrinologist

Dr. Bharathi Rajshekar  
Endocrinologist

Dr. Minakshi Bansal  
Endocrinologist

Dr. Indu Gopal  
Endocrinologist

Dr. Farah Nabi  
Endocrinologist

Dr. Shazia Rashid  
Gynaecologist

Dr. Uma Maheshwari  
Gynaecologist

Dr. Rahela Noble  
Gynaecologist

Dr. Shipra Kunwar  
Gynaecologist

Dr. Neena Pachchhapurkar  
Gynaecologist

Dr. Ambreen Qureshi  
Gynaecologist

Dr. Jasmine David  
Endocrinologist

Dr. Smriti Attam  
Gynaecologist

Dr. Geetha Vaidyanathan  
Gynaecologist

Dr. Perveena Fareed  
Gynaecologist

Dr. Saima Gayas  
Gynaecologist

Dr. L.K.Pandey  
Gynaecologist

Dr. Pratibha Singh  
Gynaecologist

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Gynaecologist

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Gynaecologist

Dr. Perveena Fareed  
Gynaecologist

Dr. Saima Gayas  
Gynaecologist

Dr. L.K.Pandey  
Gynaecologist

Dr. Deepk Tina  
Gynaecologist

Dr. Varsha Mahajan  
Gynaecologist

Dr. Dr. Bakul K. Joshi  
Gynaecologist

Dr. Sowmya Manjapara  
Nutritionist

Ms. Zeba Mujib  
Nutritionist

Dr. Anjali Joshi  
Ayurveda Specialist

Dr. Karuna Neeli  
Gynaecologist

Ms. Pooja Kochhar  
Nutritionist

Associe Members

Dr. Preethi Shukla  
Doctor Of Philosophy

Dr. Rajeshwari Yadav  
Psychotherapist, Homoeopath

Ms. Sowmya Mandarapu  
Nutritionist

Dr. Parampreet Kaur Ghuman  
Gynaecologist

Dr. Anjali Joshi  
Ayurveda Specialist

Dr. Karuna Neeli  
Gynaecologist

Ms. Pooja Kochhar  
Nutritionist

PCOS Quizzes

Past QUIZZES Modules

1. Diagnosis of PCOS
2. Cutaneous Manifestations in PCOS
3. Adolescent PCOS
4. Hormones in PCOS
5. PCOS and Menopause
6. Managing Gestational Diabetes Mellitus (GDM) in Your Clinic
7. PCOS and Fertility
8. PCOS & Cancer Risk
9. PCOS and Hypothyroidism
10. Ovulation Induction in PCOS
11. Ultrasound in PCOS
12. PCOS & Metabolic Syndrome
13. PCOS & ART
14. Genetics in PCOS
15. Nutrition in PCOS
16. Pharmacological Interventions In PCos In Non-Infertility Scenarios
17. PCOS and Laparoscopic Ovarian Drilling
18. Adjuvants in Ovulation Induction in PCOS Women
19. Hirsutism in PCOS Women
20. Nutritional aspect in PCOS - Concern and care
21. Dyslipidemia or Oxidative Stress and PCOS
22. Cardiometabolic complications of PCOS
23. Controversies in PCOS - Part 1
24. Controversies in PCOS - Part 2
25. PCOS and Pregnancy
26. PCOS and Obesity
27. PCOS and Mental Health
28. Role of Myoinositol, Melatonin & Probiotics in PCOS women
29. PCOS & Infertility
30. PCOS & IUI
31. Understanding the Origin of PCOS

Check out the past Quiz Modules on the PCOS Society Website, which are archived: https://www.pcosindia.org/become_a_quiz_member.php
Dear Friends,

2020 was the Virtual Year, the year none of us will ever forget! The last issue of Pandora as a hard copy was published in October 2019–January 2020. The onset of Covid in March 2020 prevented us from doing so, but we continued publishing our 3 issues/year for 2020 as soft copies instead! Below are the links of those 3 issues incase you have missed them and they are also available on our Website for further browsing. https://www.pcosindia.org/newsletter.php

It’s truly a pleasure to write for the first issue of the year 2021, which details all what has happened from January 2021 to March 2021 and the forthcoming events from April onwards.

It’s been difficult working in 2020, though we have been able to achieve a lot virtually. The year 2020 had been focussed on creating Patient Awareness through “Club PCOS”. Our Committee Members have participated in 16 episodes of live chats on Instagram with PCOS patients. A collaboration with “Conquer PCOS”, a portal for PCOS patients with 5000 plus current membership, has offered us the opportunity to reach out to PCOS girls and women with the correct scientific information which they need from us. Also attached are the links of videos for patient awareness each about 2-3 mins, which have been created and hosted on the “You Tube Channel” of the “PCOS Society of India” and on our Website.

1) Signs & Symptoms of PCOS: https://youtu.be/lPemr73G7ho
2) Irregular Menstrual Cycles: https://youtu.be/SymefDOIecVs
3) Cosmetic Issues: https://youtu.be/AwHmuuHUCchw
4) Does PCOS affect Fertility: https://youtu.be/nKo3U42PiA
5) PCOS and Assisted Reproduction: https://www.youtube.com/watch?v=IrjLAZKIOWk
6) Diet in PCOS ………….. and many more in the making

The W3 Webinar Series has been initiated this year for us all to understand the complexities of PCOS in a very practical way when we ask “What, When and Why?” These Webinars are extremely clinical and discuss threadbare the issue under focus, with the help of experts from the related disciplines of medicine. We have had a fantastic response to the completed Webinars, the details of which are available on page 9 of this issue and the videos are on our website.

A Brilliant 2 day Masterclass on “Elective Freeze all” was held on 20th & 21st March, 2021 with international and National Experts. Supported by Origio, Torrent, Emcure, & Shield, The entire event is recorded and available free of cost to all members of the PCOS Society to view, if they were unable to attend it. The Abstracts of the Masterclass are included on the Center-spread of this issue, which I am sure will tempt all of you to watch it on our Website!

The biggest advantage of the Covid Era is the possibility of listening to so many global and National Experts, giving us the opportunity to update ourselves in areas which we do not normally seek in-depth knowledge, the knowledge now comes to us in a ready format!

But at the same time the human touch is missing! I am sure we are all longing to be with our families and our friends, we truly miss meeting each other personally meeting colleagues and friends at conferences gives us opportunities, where we combine academics, friendship and travel to different countries! Let’s hope our magic returns and we all meet each other again at the Annual Conference of the PCOS Society of India to be held in Mumbai on the 2nd & 3rd October, 2021.

I would like to take this opportunity to thank our Corporate Partners who have supported our Academic Programs so that we as the PCOS Society of India can reach out to all of you with the most recent updates on the subject. We also thank them for making it possible for us to create this Newsletter “Pandora” which reaches on the desk of 35000 physicians.

Hoping all of you have been Vaccinated towards a healthy and safe 2021!

With warm regards,

Duru Shah
Founder President
The PCOS Society of India
Events & Updates

Convenors: Dr. Duru Shah | Dr. Madhuri Patil | Dr. Uday Thanawala

January 9, 2021
CME Workshop - BADHAI HO!
Tackling the Pregnant PCOS

Dear Friends and Colleagues,

Greetings from “The PCOS Society of India”. It gives us great pleasure in inviting you to participate in our diverse workshop on “Tackling the Pregnant PCOS” organized by “The PCOS Society of India”

Dr. Duru Shah
Founder President
The PCOS Society (India)

Dr. Uday Thanawala
Convenor
Treasurer
The PCOS Society (India)

1100+ Registered Delegates

The PCOS Society of India collaborated with the Indian Society for the Study of Reproduction and Fertility (ISSRF) for the International Conference on Challenges and strategies in reproductive and environmental health with special reference to covid-19 pandemic. The conference was a 3 day academic meet with indepth discussion of COVID-19 right from its ontogenesis to the Epidemiological and Psycho-social Behavioral link between COVID -19 & reproductive health.

Dr. Duru Shah, the President of The PCOS Society of India highlighted the effect of COVID-19 on Adolescents & Young Adults, strategies to reach out to them & the need for developing new Policy Recommendations to address their issues in future.

PCOS Science Live
A Webinar Series

“PCOS Science Live” is a series of interactive discussions with Researchers who have had impactful publications in indexed journals. Our agenda is to reach out to young minds and get them inclined towards research.

Check out the past Episodes on the PCOS Society Website, which are archived.

https://pcosindia.org/webinars.php

January 9, 2021
CME Workshop | 4.00 - 8.00 pm (IST)

Welcome by Dr Duru Shah

About the Workshop - Dr Uday Thanawala

Session 1
Common Pregnancy Problems Patients worry about
Moderator: Dr Uday Thanawala

Can I continue my Beauty Regime in Pregnancy - Hair colour, laser, etc - Dr Jaishree Sharad

Diet & Exercise helped me to conceive - now what level of exercise shall I continue in Pregnancy? - Dr Nigamaja Haranahar

If diet now - won’t my baby be malnourished? - Dr Shilpa Joshi

Discussion on above topics

Session 2
Hyperglycemia in Pregnancy - HIP
Moderator: Dr Madhuri Patil

How many of a PCOS who is now pregnant - Dr Sujata Kar

Methods of Monitoring Sugar Levels - What is recommended and what is practical for the patient? - Dr Pipa Bhatika Thakkar

Metformin or Insulin - Which to start & when? - Dr Shashank Joshi

When to terminate a Pregnancy in HIP? - Dr Uday Thanawala

Discussion

Session 3
Panel on - The 4th Trimester & Beyond

Moderator: Dr Anita Soni

Panelists - Dr Ritu Joshi, Gauri Karandikar, Sarita Bhalerao, Nigamaja Haranahar

Audience Interaction

January 9, 2021
CME Workshop - BADHAI HO!
Tackling the Pregnant PCOS

PCOS Science Live
A Webinar Series

19 DECEMBER 2020, SAT.
7:00 TO 8:00 PM (Indian Standard Time)

In conversation with...
.... discussing their research

Prof. Duru Shah, MD
Founder President,
ThePCOS Society of India
Director Gynaecology: The Center for Women’s Health & Fertility, Mumbai

Dr. Vidita Vaidya, PhD
Indian Researcher and Professor at Tata Institute of Fundamental Research

Dr. Amra Dokral, MD, PhD
Chairman-PCOS India, Consultant OB/GYN, Decinstitute of Women's Health, Mumbai

REGISTER NOW
https://pcosindia.org/

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ISSRF 2021
Masterclass: “Elective Freeze-All” Program

Convenors: Dr. Duru Shah | Dr. Madhuri Patil | Dr. Rajvi Mehta
International and National Faculty (IVF Experts and Embryologists)

20th - 21st March 2021 | 2:00 - 9:00 p.m. (IST)

Saturday, 20th March 2021

8:00 - 9:00 am Welcome and Greeting of the Masterclass: Dr. Thara Shah

Day 2: Kind Heart - Dr. Varalakshmi Telrre

9:30 - 10:15 am Session 1: Understanding the Conception

10:15 - 10:30 am Break

10:30 - 11:15 am Session 2: Fertilization and Embryo Transfer

11:15 - 11:30 am Break

11:30 - 12:15 pm Session 3: Embryo Development from Three Cells

12:15 - 12:30 pm Break

12:30 - 1:15 pm Session 4: The Best Time to Proceed with Embryos

1:15 - 1:30 pm Break

1:30 - 2:15 pm Session 5: Monitoring and Outcomes after ET

2:15 - 2:30 pm Break

2:30 - 3:15 pm Session 6: Questions and Answers from Day 1 & Day 2: Dr. Madhuri Patil

3:15 - 3:30 pm Break

3:30 - 4:15 pm Session 7: Embryos with Abnormalities

4:15 - 4:30 pm Break

4:30 - 5:15 pm Session 8: Embryos with Unfavorable Outcomes

5:15 - 5:30 pm Break

5:30 - 6:15 pm Session 9: The Best Time to Proceed with ET

6:15 - 6:30 pm Break

6:30 - 7:15 pm Session 10: Day 1:

7:15 - 7:30 pm Break

7:30 - 8:15 pm Session 11: Day 2:

8:15 - 8:30 pm Summary and Questions

Dr. Neelangini Gokhale

“I found the seminar incredibly helpful and I’m looking forward to employing what I learned this season.”

Dr. Shally Gupta

“I found this seminar incredibly helpful and informative seminars I have ever attended. Thank you for organizing and a very special thanks to the great speakers!”

Dr. Shahana Abdu

“I really appreciated all the speaker’s personal anecdotes. I feel like it drives the important points home.”

2088+ Doctors Enrolled and still rising

Masterclass: “Elective Freeze-All” Program

Convenors: Dr. Duru Shah | Dr. Madhuri Patil | Dr. Rajvi Mehta
International and National Faculty (IVF Experts and Embryologists)

20th - 21st March 2021 | 2:00 - 9:00 p.m. (IST)

EXPERTS

Dr. Artemis DF Angele

Dr. Frank Pothakheim

Dr. Hiral Shah

Dr. Rajat Agarwal

Dr. Vimala Prakash

Dr. Smita Malhi

Dr. Shyamal Patel

Dr. Sheela Rana

Dr. Nikhil Datar

Dr. Prerna Madani

Dr. Madhvi Vaidya

Dr. Swati Mehta

Dr. Viraj Kulkarni

DNA Hence Messages from Day 2: Dr. Madhuri Patil

Dr. Shally Gupta

Dr. Neelangini Gokhale

Dr. Shahana Abdu
Why Freeze All?

Rapid improvements made in cryopreservation techniques (Vitrification) have led to few or no detrimental effects to the embryo and have resulted in no consequences to the offspring when compared to fresh embryos. This inspired the concept of the freeze-all policy (when all viable embryos are electively cryopreserved in the fresh cycle and transferred in a posterior cycle).

Although fresh embryo transfer (ET) has been the norm until recently, there are many concerns about the possible adverse effects of controlled ovarian stimulation (COS) on endometrial receptivity and the uterine environment. COS may contribute to modifications in the endometrium (by way of the supra-physiologic levels of Estradiol and Progesterone), which may be causing the embryo as a result of the possible unnatural changes that we are required to produce embryos to implant, we must establish when and how to cryopreserve them. The emergence of late onset and often severe prematurity, abnormal placentation and low birth weight, abnormal placentation and accidental haemorrhage. In the freeze-all strategy, the entire cohort of embryos is vitrified (not just the “surplus”), and the best embryos are transferred in a subsequent cycle with a more physiologic endometrium. In the past few years, the freeze-all strategy has emerged as a safer and more successful alternative to conventional fresh ET. The freeze-all strategy during IVF / ICSI cycles. Data suggests that live birth rates are higher and obstetric and perinatal outcomes in pregnancies resulting from frozen embryo transfer (FET) are better than those from fresh ET. There is concern, however, about macrosomia and long term effects of vitrification on the babies born.

Besides circumventing the adverse effects of ovarian stimulation, the freeze-all strategy is also useful for patients of endometriosis, low or poor progesterone on day of hCG, thin endometrium, previous unexplained repeated implantation failures, previous ectopic or biochemical pregnancies and patients with recurrent miscarriages. At the same time, although the principle that COS on endometrial development, healthy normal embryo, embryo-endometrial synchrony, a successful molecular dialogue and immune tolerance. Evaluation of endometrial receptivity is an effective tool to increase success of infertility treatment. Identification of one or more of endometrial parameters that definitely indicate receptivity for implantation remains an elusive goal. None of the endometrial receptivity markers have sufficient discriminatory power to act as a diagnostic test for endometrial receptivity based on their ability to predict clinical pregnancy. Endometrial evaluation by 2D and 3D USG with or without doppler, embryo biopsy with ERA, endometrial fluid aspirate or hysteroscopy may be of help in determining endometrial receptivity.

The evolution of cryopreservation techniques has been intricately linked with the trend towards undisturbed, extended culture and selection of embryos for transfer, embryo biopsy and vitrification. However, the clinical services offered by various assisted reproduction centres around the world remain varied for several reasons, including capacity and convention. Furthermore, the latest pandemic has brought into focus the central role of cryopreservation in risk mitigation. Therefore, the answer to the question raised by the title of this abstract, there being many variables to consider. Indeed, there are probably as many good arguments for freezing D3 as there are for freezing D5 embryos and this presentation will consider the scientific basis for each case.

Principles of Vitrification & Warming

Cryopreservation is an essential element of a comprehensive medically assisted reproduction (MAR) service. As well as boosting overall success rates by offering additional chances to conceive beyond an initial fresh transfer1, it provides the opportunity for fertility preservation, whether for medical reasons or social ones (where permitted).

In MAR, cells and tissues are almost exclusively cryopreserved by slow freezing/rapid thaw techniques or vitrification, with this latter technique now predominating at least for oocytes and embryos. Both approaches have benefits and drawbacks. Given that cell damage by ice formation is a significant risk, vitrification (if done well) obviates this risk as ice will not form2,3 and so appears to give improved preservation outcomes at all stages1,4,5.

Vitrification systems use a combination of permeating cryoprotectant agents (CPAs) during the equilibration phase, typically ethylene glycol (EG) and either dimethyl sulfoxide (DMSO) or 1,2-propanediol (PGOH). A sugar (sucrose or trehalose, for example) is added to the vitrification medium as a non-permeating CPA that produces an osmotic gradient which results in water egress from the cells. The permeating CPAs are omitted from warming solutions, with the rehydration process controlled solely using an osmotic gradient, again using the sugar, non-permeating CPA. The similarity between commercial systems has led to the introduction of universal protocols for warming6 which can also be applied successfully to slow-frozen samples7. Optimization of vitrification/warming depends on quality of gametes/embryos, temperature control, volumes of media used, timings (eg equilibration time) and very rapid warming.

Overall, results are favourable compared with slow freezing and available data suggest that vitrification is largely safe with no increase in congenital malformations8 though fetuses may show elevated incidence of macrosomia and being large for gestational age.

How do we assess the optimum endometrial parameter in a FET cycle?

Successful Implantation requires morphological and functional endometrial development, healthy normal embryo, embryo-endometrial synchrony, a successful molecular dialogue and immune tolerance. Evaluation of endometrial receptivity is an effective tool to increase success of infertility treatment. Identification of one or more of endometrial parameters that definitely indicate receptivity for implantation remains an elusive goal. None of the endometrial receptivity markers have sufficient discriminatory power to act as a diagnostic test for endometrial receptivity based on their ability to predict clinical pregnancy. Endometrial evaluation by 2D and 3D USG with or without doppler, embryo biopsy with ERA, endometrial fluid aspirate or hysteroscopy may be of help in determining endometrial receptivity.

Safety concerns about contamination in open vs closed systems

Vitrification is currently the most widely used method for the cryopreservation of embryos. Through high cooling and warming rates, effective vitrification is possible with high survival rates after thawing. The main advantage of this technology is due to the fact that this technology bypasses the crystallisation phase and immediately solidifies the content is the very reason of its success. There are closed and open systems for executing the procedure of vitrification. Closed vitrification ensures a physical separation of the embryo and the surrounding liquid nitrogen. In open systems, there is direct contact between the environment and the embryo. Concerns about contamination were raised when open systems were brought to the market although there has been no direct evidence of disease transmission by cryopreserved human embryos or contamination of embryos by microorganisms surviving in the cryopreservation vessels. These risks can be mitigated by using closed vitrification systems. Systematic reviews show that there is no statistical difference in effectiveness (survival rates, implantation rates and live birth rates) of vitrification of embryos in open versus closed systems. Using sterile liquid nitrogen washes is also a possibility and has shown to be effective in removing artificially contaminated straws. A risk that is often overlooked is the fact that contamination can also occur when handling the straws, regardless of the open or closed procedure. Training of personnel, making them aware of the possible risks of contamination and having high survives rates after thawing. The fact that this is an important in good cryopreservation practices, regardless of the open or closed vitrification. This talk will give an overview of the theoretical and hypothetical risks associated with open and closed systems and how to mitigate them.

Transporting embryos from one site to another

Along side the core fertilization techniques like – IVF or ICSI, variety of pharmacological agents and interventions are being implicated as Adjuvant Therapies. Numerous Adjuvants have been proposed to improve IVF success rates. Some of them are: Adjuvant Therapies in current practise can broadly be classified as: Adjuvants for Ovarian Response/ oocyte, Adjuvants for Sperm, Adjuvants for Embryos, Adjuvants for Endometrial Preparation/ Implantation. Despite, huge progress in the treatment of subfertile couples, Endometrial receptivity remains a key limiting factor for implantation after IVF. In achieving a successful pregnancy, it is essential to establish receptivity in embryo implantation. Undeniably, the role of immune system is well recognised as it facilitates tolerance for the foreign embryo attachment. Different adjuvants have been proposed to prepare Endometrial Receptivity like Low – dose Aspirin, Heparin, Estrogens, Vaginal Sildenafil, Pentoxiphylline, Glucocorticoids, G-CSF, Endometrial Scratching, Hysteroscopy, Intravenous Lipids, Anti-Tumor factor - a (TNF-a) agents, Autologous Platelet Rich Plasma, Hysteroscopic Subendometrial infiltration and treatment with Bone Marrow derived stem cells. To conclude, more well – designed and randomised studies are required in order to understand the safety and efficacy of the Adjuvant Therapy in IVF.
Adjuvants in Endometrial Preparation

Challenges in oocyte vitrification of mature and immature oocytes

Age and stage specific sensitivity in oocytes to vitrification-warming

Endometrial preparation - natural cycle/ stimulated or the artificially prepared cycle?

Oocyte maturation is a complex process that involves both nuclear and cytoplasmic maturation, which, if disturbed can alter spatial and temporal dynamics of the oocyte and affect their functional competence. One specific major problem associated with cryopreservation of metaphase II oocytes is the sensitivity of the microtubular spindle to cryopreservation. The use of freeze-all maximizes the number of good-quality embryos available for transfer in FET and keeps live birth rates high. However, there is a trade-off by choosing not to perform embryo transfer in the fresh cycle, time to live birth might be longer. Pregnancy outcome after FET is also to be considered because of the increased live birth weight of FET infants and associated higher incidence of operative delivery.

Is luteal phase support different in FET cycles?

It is a well known fact that the Luteal Phase is inadequate in fresh IVF cycles due to raised hormone levels following Controlled Ovarian Stimulation. The luteal support required in a Frozen-Thaw Embryo transfer Cycle needs to be modified as per the protocol used to prepare the endometrium in order to maintain endometrial embryo synchrony. In Artificial Cycles (AC) which is prepared by the use of steroid hormones, a larger luteal support is required as compared to the modified natural cycle, due to the absence of a Corpus Luteum. Progesterone can be administered via the oral, parenteral, vaginal or rectal routes. Adjuvants such as HCG, estradiol and GnRh agonist bolus have been utilized, with only the use of GnRh agonist giving better results. Both the parenteral and vaginal routes are also to be considered effective. The use of the oral natural Progesterone seems to be ineffective, whilst the synthetic progesterone Dydrogesterone has been hypothesized that prepubertal GV stage oocytes have limited functional ability than oocytes from adults and hypothesized that prepubertal GV stage oocytes have limited functional ability. Sensitivity of the microtubular spindle to cryopreservation of metaphase II oocytes is the specific major problem associated with vitrification will further reduce their structural and functional integrity. Using mouse model, we tried to address this shortcoming. For example, vitrification of immature (both GV and MI) oocytes leads to significantly lower survival rates. A comprehensive presentation comprehensively covers clinical experiences in immature oocyte cryopreservation, explains what challenges are there when compared to mature oocyte freezing and provides data, which could help enhancing success of immature oocyte vitrification for your patients.

Dr. Duru Shah
Director, Gynaecworld - The Center for Women's Fertility & Health, Mumbai

Dr. Satish Kumar Adiga
Professor & Head, Clinical Embryology
Kasturba Medical College, Manipal

Dr. S. Balaji
Chief Embryologist, Thomson Fertility Centre, Singapore

Dr. Zdravka Veleva
Researcher | Department of Obstetrics and Gynecology
Helsinki University Hospital and University of Helsinki, Finland

Dr. Nayana Patel
Medical Director, Akanksha Hospital and Research Institute

Dr. Ethiraj Balaji

Dr. Dipam Nikiforov
Clinical Embryologist, Researcher, Laboratory of Reproductive Biology, Denmark

Dr. Jyoti Duggal
The W3 Webinar Series explains the "What","When" and "Why" of the various complexities of PCOS in a practical format.

"Excellent discussion & presentation."  
- Dr. S K Gupta

"Nice Informative session."  
- Dr. Bindu Rao

"Great speakers! Very important career development information."  
- Dr. M Rajagopalan

"Excellent discussion, provided very valuable information."  
- Dr. Kamal M Advani

"Very informative, useful, insightful."  
- Dr. Vanita B Metgud

"Basic and very informative."  
- Dr. Manjula Singhal

975+ Doctors Enrolled and still rising  
https://youtu.be/rROJRAioRaw

900+ Doctors Enrolled and still rising  
https://youtu.be/B6Gh9cJQWZk
It was very informative and also very interesting session. Thank you for providing this level of platform where we can learn more and more.

- Dr. Akhila Kosuru

“Excellent topic discussion with each member sharing their experiences from real life and simple solutions. Thank you all.”

- Dr. Akash Giri

“Excellent, as moderator allowed question specific panelist to answer. No repetition by panelist is best part.”

- Dr. Shendurnikar

“Very good discussion on all aspects of management of PCOS pts. Clarified many wrong concepts on diet.”

- Dr. Nidhi Nair

Enjoyed every bit of session.

- Dr. Saima Gayas

“Thank you so much mam & sir for such informative webinars on pcos.”

- Dr. Ruby Kumari

“Thanks for valuable discussion.”

- Dr. Jitendra Mandal

“It was a helpful session. Thank you.”

- Dr. Neha Vegad

Can adjuvants assist in improving oocyte quality?

Why Does OHSS occur and how to manage OHSS in PCOS?

What is “Fatty Liver”?

Does PCOS and Vitamin D have any connection?

Do Inositols play a role in PCOS management?

Managing GDM for best outcomes for mother and child

Do PCOS women develop Osteoporosis after menopause?

Which Gonadotrophins should we use in ART for PCOS?

Upcoming W3 Webinar Series

**Month & Day** | **Date & Time** | **Topic** | **Convenor** | **Sponsors**
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April Saturday | 03 - 04 - 21 | 7:00 - 8:30 p.m. | The ART & SCIENCE of COH in infertile PCOS women | Dr. Sujata Kar | USV
| 10 - 04 - 21 | 7:00 - 8:30 p.m. | Can adjuvants assist in improving oocyte quality? | Dr. Kanthi Bansal | torrent
| 17 - 04 - 21 | 7:00 - 8:30 p.m. | Why Does OHSS occur and how to manage OHSS in PCOS? | TBA | SUN

May Saturday | 08 - 05 - 21 | 7:00 - 8:30 p.m. | What is “Fatty Liver”? | Ms. Ruby Sound | USV
| 15 - 05 - 21 | 7:00 - 8:30 p.m. | Does PCOS and Vitamin D have any connection? | Dr. Sandhya Saharan | torrent
| 22 - 05 - 21 | 7:00 - 8:30 p.m. | Do Inositols play a role in PCOS management? | TBA | SUN

June Saturday | 05 - 06 - 21 | 7:00 - 8:30 p.m. | Managing GDM for best outcomes for mother and child | Dr. Sarita Bhalerao & Dr. Shilpa Agarwal | USV
| 12 - 06 - 21 | 7:00 - 8:30 p.m. | Do PCOS women develop Osteoporosis after menopause? | TBA | torrent
| 19 - 06 - 21 | 7:00 - 8:30 p.m. | Which Gonadotrophins should we use in ART for PCOS? | Dr. Payal Bhargava | SUN
The current scenario of embryo storage, including COVID-19

Cryopreservation of reproductive tissues and cells has dramatically improved clinical outcomes for patients all over the world. Storage in liquid nitrogen (LN2) or vapour nitrogen is definitely the most common system used to store gametes, embryos and gonadal tissue. Embryo cryopreservation and thawing are a daily process in a fertility clinic. To ensure short and long-term maintenance of viable cryopreserved specimens, reliable cryostorage tanks capable of efficiently holding LN2 temperature below -150 °C have been fabricated by creating a double metal container with an insulated, sealed vacuum air chamber between them.

Cryostorage presents many potential risks to the cryopreserved cells/tissues, including loss of viability and contamination. Some events of cryogenic storage tank failures have created worldwide concern among infertility patients and patients storing embryos and gametes for future use. Quality management plans applied by IVF laboratories need to include a more comprehensive focus on the cryostorage of reproductive specimens. With an emphasis on risk assessment related to tank failures, remote monitoring and alarm systems are needed in the continuous assessment of tank functionalities. Failures can occur when alarms are “turned-off” and a critical issue is ignored. It is highly unlikely for alarm systems and tanks to fail, but complacency can result in failure. Therefore, it is essential to act and resolve repetitive signals of an impending problem by implementing a risk assessment plan.

Another issue is the introduction of contamination in the storage vessel, which can happen due to human manipulations during processing. Viral and microbial agents can survive for long periods of time in LN2. However, no reports have shown cross-contamination between these environmentally induced pathogens and the preserved reproductive cells and tissues. Also, storage of samples originating from patients carrying infectious diseases in LN2 has not led to cross-contamination of other frozen reproductive material residing in the same vessel. Even though evidence is lacking, it should be considered good laboratory practice to store reproductive material of patients with positive serology and negative serology separately. In such a context, with the advent of COVID-19 global pandemic, IVF laboratories are forced to apply preventative measures in order to minimize the risk of disease transmission to and between human embryos, gametes and reproductive tissues in cryostorage.
Club PCOS

Educational Videos on PCOS

- PCOS & Assisted Reproduction | Dr. Duru Shah
- Does PCOS affect Fertility | Dr. Duru Shah
- Cosmetic Issues | Dr. Duru Shah
- Irregular Menstrual Cycles
  - Dr. Duru Shah | Dr. Lipika Moharana
- Signs & Symptoms of Polycystic Ovarian Syndrome
  - Dr. Duru Shah | Dr. Lipika Moharana

WATCH MORE VIDEOS ON https://pcosindia.org/patient-awareness-videos.php

Upcoming Events

1st Elimination Round to be held on 23rd May 2021
2nd Elimination Round to be held on 20th June 2021
The finalists will go on to participate in the Final Quiz to be held on 25th July 2021

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- Improves HPO axis functioning
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- Reduces hyperandrogenism
- Improves oocyte & embryo quality
- Helps to improve ovarian function in PCOS patients

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3. Gynecological Endocrinology, December 2012, 1-76
4. S. Ghimire, Repeat Mid for 2018, 1, 805-806. 1 Fetus 1