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Welcoming Our New Members....

Patron Members

- Dr. Aishwarya Nupur  
  Gynaecologist
- Dr. Amrita Kaur Talwar  
  Gynaecologist
- Dr. Ashtosh Halder  
  Gynaecologist
- Dr. Fessy Louis  
  Gynaecologist
- Dr. Firuza Parikh  
  Gynaecologist
- Dr. Kavya Venkatappa  
  Gynaecologist
- Dr. Mugdha Jungari  
  Gynaecologist
- Dr. Nupur Kushal Mital  
  Gynaecologist
- Dr. Pallavi Sharma  
  Gynaecologist
- Dr. Rooma Sinha  
  Gynaecologist
- Dr. Shalini Agrawal  
  Gynaecologist
- Dr. Shameena AV  
  Gynaecologist
- Dr. Shradha Goel  
  Gynaecologist
- Dr. Sunita Tagra  
  Dermatologist

Life Members

- Dr. A Anandhi  
  Gynaecologist
- Dr. Abhilasha Thakyal  
  Gynaecologist
- Dr. Ambuja Choranor  
  Gynaecologist
- Dr. Annil Mahajan  
  Gynaecologist
- Dr. Asmat Runyal  
  Gynaecologist
- Dr. Banshi Saboo  
  Diabetologist
- Dr. Bharath Sreedhar  
  Gynaecologist
- Dr. Bimal John  
  Gynaecologist
- Dr. Dinesh Kumar  
  Gynaecologist
- Dr. Divya Dwivedi  
  Gynaecologist
- Dr. Esha Sharma  
  Gynaecologist
- Dr. Fouzia Wangde  
  Gynaecologist
- Dr. G. N. Mansukhani  
  Gynaecologist
- Dr. Harleen  
  Gynaecologist
- Dr. Harleen Sandhu  
  Gynaecologist
- Dr. Jugal Gada  
  Endocrinologist
- Dr. Jayotsana Lamba  
  Gynaecologist
- Dr. Karri Surya Prabha  
  Gynaecologist

Associate Members

- Dr. Nithika Garg  
  Scientist
- Dr. Ravali Vemula  
  General Physician
- Dr. Reema Mathur  
  Dietician
- Dr. Shraddha S  
  Nutritionist
- Dr. Srabani Mukherjee  
  Reproductive Biologist
- Dr. Tanu Tiwari  
  Dentist
- Ms. Zuhi Sabara  
  Nutritionist
Dear friends,

It’s been raining webinars for the past 4 months; we were in a corona frozen state for a couple of months and all activities came to a standstill! Until we realized that our holiday was getting too long and we needed to get out of this mood and get accustomed to this new normal. Slowly we limped back to our jobs, a little more at a time, and then came the turn of our academics! Our generation has started getting familiar with the new-age digital platform with the help of our younger colleagues, our children, grandchildren and our enthusiasm to get on with our lives! Many embarrassing moments followed, but we survived!

All the academics which had been scheduled during those immobilized months were now rescheduled leading to the downpour which we have faced over the last few months!

We have become busier with work, but yet are attending more lectures and conferences, sitting in front of our laptops, than in lounges at airports and conferences all over the world! Today we are imbibing more knowledge just sitting at a desk. Through the PCOS Society of India, we have been into an overdrive! We had been extremely comfortable conducting webinars in the pre-covid days, i.e. in the year 2018-2019 when we did 18 international webinars in the process of disseminating the latest International guidelines on PCOS!

We published our Second newsletter of the year in August 2020, which carried all what we did from May 2020 till August 2020. I do hope you have been receiving “PANDORA” the monthly newsletter of our Society. If not, please write to us at thepcossociety@gmail.com and forward your email id and contact details, and we will get back to you!

This current issue of “Pandora” is fully dedicated to our activities through August and December 2020. It carries the “Abstracts of our Conference lectures”, our various initiatives like “PCOS Science Live”, “PCOS Quizzes” programs for patient awareness like “Instalive” on Instagram and “Educational Videos” from “Club PCOS”. It also carries to reports of all our programs held.

Please do visit our Website, www.pcosindia.org and I am sure you will want to join in and become our member, and avail of all its benefits!

But are we truly enjoying this phase? Yes we are learning more, but at what cost? I am missing the joy of meeting and hugging my friends, interacting with them, travelling to new regions of the world, experiencing new cultures, enjoying a relaxed evening of music and fun, together and exchanging ideas!

In short, I am missing the experiences I have been enjoying for the past 25 years!

Dear friends those memories are imprinted within me and I look forward to meeting you all somewhere in the world, sometime soon!

Wishing you all a very happy new year 2021!

With warm regards,

Duru Shah
Founder President,
The PCOS Society of India

Email: thepcossociety@gmail.com
www.pcosindia.org

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The PCOS Society of India had initiated an exciting and extremely informative weekly Quiz Series, "PCOS Quizzes" from 15th August 2020. This Series is targeted towards post graduates and clinicians, to update their knowledge on PCOS. Every Monday morning a quiz is uploaded on the PCOS Society website. Each Quiz consists of 5 Questions in a multiple choice format with a maximum score of 50. The results are displayed immediately on the screen along with the scientific explanation for the correct answer with the appropriate reference article for further reading on that subject.

The marks of the weekly quiz are added up for each participant and the top scorer of the month gets a gift coupon of Rs. 1000 from Amazon. The top 50 scorers of these quizzes will get an opportunity to participate in the Final Live Quiz which will be held in March 2021. The 1st, 2nd, and 3rd prize winners will be entitled to a cash prize worth Rs. 1 lakh, 75 thousand and 50 thousand.

Check out the past Quiz Modules on the PCOS Society Website, which are archived [here](https://www.pcosindia.org/become_a_quiz_member.php).

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**PCOS Science Live**

**EPISODE ONE – 27 Sept. 2020**

‘Novel Technique of Developing a Normal Vagina’

Emeritus Prof. Pravin M. Mhatre in conversation with Prof. Duru Shah describing how he performed the first ovarian transplant in the world! He then went on to describe his latest research on the development of a normal vagina using peritoneum, laparoscopically.

His detailed research can be accessed on [here](https://pubmed.ncbi.nlm.nih.gov/25395743/)

Live Video Link Episode 1 [here](https://youtu.be/vWInKZZxcC8)

**EPISODE TWO – 31 Oct. 2020**

‘Does COVID affect Human Reproduction?’

Dr. Smita Mahale, Director & Scientist ‘G’ at NIRMH - ICMR, Dr. Deepak Modi, Scientist ‘F’ & Dr. Rahul Gajbhiye, Scientist ‘D’ in conversation with Prof. Duru Shah. The discussion was related to how COVID-19 affects pregnancy, the development of the “Preg COVID Registry” and their research and services surrounding COVID-19.

Their detailed research can be accessed on [here](https://doi.org/10.1101/2020.08.18.20177121)
[here](https://pubmed.ncbi.nlm.nih.gov/33090458/)

Live Video Link Episode 2 [here](https://youtu.be/fJ4HIp4969A)

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"PCOS Science Live" is a series of interactive discussions every month 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.

PCOS Science Live 3rd Episode Register on [here](https://pcosindia.org/webinars.php)
Workshop on “Ovulation Induction in PCOS – Overcoming challenges” was held on Saturday 29th August 2020. Convenors: Dr. Duru Shah | Dr. Madhuri Patil

The aim of any treatment in fertility especially ART is to achieve pregnancy with maximum efficiency and patient comfort and with minimal complications. Ovarian stimulation remains an essential part of ART. Undoubtedly, there is a need to reliably predict ovarian response to stimulation, to tailor stimulation protocols, optimise the periovulatory hormonal environment, and thereby increase the probability of pregnancy while keeping the risks of complications and costs at a minimum. Moreover, PCOS women due to their endocrine abnormalities and more number of antral follicles are more susceptible to complications like OHSS, premature rise in progesterone levels which can affect the endometrial receptivity. Optimization of the environment conducive for a good outcome with minimal complications is essential and this workshop looked at all these aspects. We had 890 delegates for the workshop.

The speakers for this workshop were: Dr. Ricardo Azziz, USA, and renowned IVF specialists from India – Drs. Sadhana Desai, Sonia Malik, Kanthi Bansal, Jatin Shah and Madhuri Patil.

Workshop on “Improving Pregnancy Success in PCOS” was held on Saturday 19th September 2020.

Convenors: Dr. Duru Shah | Dr. Madhuri Patil

This workshop discussed the optimization of stimulation in difficult situations and the way forward in the presence of obesity, insulin resistance and high androgen and LH levels. It also looked at how modifying conventional stimulation protocols according to patients’ characteristics and ovarian reserve, makes it patient-friendly, optimizes the chance of live birth and prevent complications. It also discussed the impact of PCOS and stimulation on implantation and how individualized controlled ovarian stimulation protocols single embryo transfer or freeze all policy could help in increasing success of ART thus reducing miscarriage rate, stress, anxiety and complications. It made the participants understand the interplay of endocrinology, immunology, the uterus and the embryo, in PCOS women and how we could modulate these for better outcomes.

World experts in the field of reproductive endocrinology deliberated on topics of high interest in the field of reproductive endocrinology. The speakers for this workshop were: Louise Hull from Australia, Anuja Dokras and Fady Sharara from USA, Duru Shah, Madhuri Patil, Sujata Kar and Padma Rekha Jirge from India.

Participants who attended this workshop were fully updated with evidence based knowledge on how to increase success rates in ART through optimisation of treatment protocols. They were also made aware of the limitations and practical barriers so as to help them to incorporate this knowledge in clinical practice.

We had around 1300 registrations for this Workshop.

On 29th November 2020, we conducted an evening workshop with a difference! Entitled “Healthy Living: Conquering PCOS Across Generations”, this was a lifestyle event, that comprised of multiple interactive panels that brought together a myriad of experienced and popular Dermatologists, Nutritionists, Psychiatrists, Endocrinologists, Gynaecologists, Gastroenterologists, Fitness experts, Pulmonologists, Psychologists, Yoga experts and Fitness gurus – each representing the different doors of entry for young girls and women suffering with PCOS at different points across their lifetimes and across generations. We had 858 delegates for the workshop.

The event convened by Piya Ballani Thakkar and Dr. Madhuri Patil held in collaboration with The Indian Dietetic Association, Mumbai Chapter and Bombay Psychiatric Association was attended by a multidisciplinary faculty audience, who ended the evening with numerous practical take home pearls and the sense that team-effort is necessary to successfully tackle the many faces of PCOS.

The videos of all workshops will be available at https://www.pcosindia.org/video-gallery.php

Upcoming workshop

9th Jan 2021

Workshop on “Tackling the Pregnant PCOS”

On Saturday, 9th January, 2021

9th January 2021 | Workshop 4 | 4.00 – 8.00 pm (IST)

4.00 pm Welcome by Duru Shah

Session 1: Hyperandrogenism in Pregnancy – HP

4.00 – 4.30 pm What is HP & its impact on pregnancy

4.30 – 5.00 pm Hyperandrogenism and pregnancy – The endocannabinoid system:

5.00 – 5.30 pm Hyperandrogenism in the literature – risks and management

5.30 – 6.30 pm Discussion

5.30 – 6.00 pm Discussion

5.00 – 6.30 pm Presentation

5.30 – 6.00 pm Discussion

6.00 – 6.30 pm Discussion

6.30 – 7.00 pm Closing remarks

7.00 – 7.30 pm Questions & Answers

7.30 – 8.00 pm Discussion

8.00 – 8.30 pm Discussion

We look forward to seeing you at our multi-disciplinary faculty online workshop.

The PCOS Society of India

Convenors of Workshops

Duru Shah
Madhuri Patil
Piya Ballani Thakkar
Uday Thanawala

Piya Ballani Thakkar and Dr. Madhuri Patil held in collaboration with The Indian Dietetic Association, Mumbai Chapter and Bombay Psychiatric Association was attended by a multidisciplinary faculty audience, who ended the evening with numerous practical take home pearls and the sense that team-effort is necessary to successfully tackle the many faces of PCOS.

The videos of all workshops will be available at https://www.pcosindia.org/video-gallery.php

Convenors of Workshops
On the 21st and 22nd of November, The PCOS Society of India held the 5th International Annual Virtual Conference on “PCOS – Best Options for Best Outcomes” under the guidance of Dr. Duru Shah, Founder President and Dr. Madhuri Patil, Vice President. This conference brought together all specialties dealing with PCOS women like gynecologists, endocrinologists, dermatologists, reproductive endocrinologists, diet experts and health and wellness experts under one roof to deliberate on the problems of PCOS.

**Speakers**

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<tr>
<td>Ajay Kumar</td>
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<td>Ajit Menon</td>
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<td>Anuja Dokras</td>
<td>USA</td>
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<td>Clare Boothroyd</td>
<td>Australia</td>
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<td>Duru Shah</td>
<td>India</td>
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<tr>
<td>Elisabet-Stener-Victorin</td>
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<td>Helena Teede</td>
<td>Australia</td>
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<td>Joop Laven</td>
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<td>Louise Hull</td>
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<td>Manjiri Valsangkar</td>
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<td>Mary Ann Lumsden</td>
<td>UK</td>
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<td>Piya Ballani Thakkar</td>
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<td>Ramen Goel</td>
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<td>Rasya Dixit</td>
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<td>Ricardo Azziz</td>
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<td>Richard Anderson</td>
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<td>Scott Nelson</td>
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<td>Shashank Joshi</td>
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<td>Sujeet Rajan</td>
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<td>Susan Davis</td>
<td>Australia</td>
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<td>Urmila Nischal</td>
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**Programme**

**Day 1 – 21st November, 2020**

- **Opening Ceremony**
  - Amit Deshmukh, Chief Guest
  - Alpesh Gandhi, R.S. Sharma, Smita Mahale – Guest of Honors

- **Session 1: Recent Advances in PCOS**
  - Chairpersons: Krishnendu Gupta, Sudhha Sharma and Mirudhubashini Govindarajan
  - Androgenic PCOS: is there a beneficial effect on female bone? Shashank Joshi, India
  - Kisspeptin, the new hormone from the brain, does it affect PCOS? Richard Anderson, UK
  - Luig acting Antagonist – a good choice for PCOS Louise Hull, Australia

- **Session 2: Managing PCOS with Metformin**
  - Chairpersons: Padmanavathy Menon, Kanthi Bansal and Sujata Kar
  - Obesity Helena Teede, Australia
  - Fertility treatment Duru Shah, India
  - Menstrual Dysfunction Mary Ann Lumsden, UK

- **Session 3: Tackling Insulin Resistance – Emerging Evidence in PCOS**
  - Chairpersons: Ratnakali Chakraborty, Sarita Bhalaria
  - Insolubilization Manjiri Valsangkar, India
  - Bariatric surgery Ramen Goel, India
  - Keynote address – Does PCOS begin in the fetus? Anuja Dokras, USA

- **Session 4: Role of ‘AMH’ in PCOS**
  - Chairpersons: Madhuri Patil and Sangeeta Agrawal
  - Predicting fertility outcome in PCOS women Anuja Dokras, USA
  - Role of AMH in assessing hyperandrogenemia Elisabet-Stener-Victorin, Sweden
  - PCOM Check: A Novel Approach to diagnose Women with PCOS Ajay Kumar, USA

**Day 2 – 22nd November, 2020**

- **Welcome**
- **Session 5: Endocrine disorders and PCOS**
  - Chairpersons: Payal Bharvaga, Suvarna Khadilkar, Ganpathi Bantwal and Sonia Malik
  - Do Hyperandrogenic women have more libido? Susan Davis, Australia
  - The relationship between PCOS and Hypothyroidism Clare Boothroyd, Australia
  - Gut dysbiosis: do the gut bacteria protect us from PCOS? Joop Laven, The Netherlands

- **Session 6: Dealing with co-morbidities in PCOS**
  - Chairpersons: Padmavathy Menon, Kanthi Bansal and Sujata Kar
  - Cardiovascular risk Ajit Menon, India
  - What is new in Gestational Diabetes? Piya Ballani Thakkar, India
  - Sleep Apnea Sujeet Rajan, India
  - IVF in the medically complicated patient Scott Nelson, Scotland

- **Session 7: Dermatological manifestations - top trends in Management**
  - Chairpersons: Nirja Chawla, Uday Thanawala, Shobhana Patted and Pratap Kumar
  - Adrenal Hyperplasia: distinctions and commonalities Ricardo Azziz, USA
  - Acanthosis nigricans and skin tags Rasya Dixit, India
  - Androgenic Alopecia Urmila Nischal, India
  - Is hirsutism a marker of metabolic dysfunction? Ricardo Azziz, USA

The videos of the conference will be available at [https://www.pcosindia.org/video-gallery.php](https://www.pcosindia.org/video-gallery.php)
Role of AMH in assessing hyperandrogenemia

While >50% of women with polycystic ovary syndrome (PCOS) are obese, which exacerbates the effects of AMH. A key feature of PCOS is hyperandrogenism, with a recent study showing a causal link between obesity and PCOS. High AMH levels in PCOS can be inferred to be a strong predictor of metabolic dysfunction in PCOS.

PCOS and NCAH: Distinctions and Commonalities

The polycystic ovary syndrome (PCOS) is a reproductive-metabolic complex genetic trait that affects approximately 1:10 women and girls. Non-classical adenoma hyperplasia due to 21-hydroxylase (cystochrome P45021A2) deficiency is a common recessive disorder affecting 1:500 individuals. Regardless of sex and depending on the ethnicity of the population, both PCOS and NCAH may present similarly, although NCAH may present with milder signs and symptoms, and degrees of metabolic dysfunction.

It is not possible to distinguish NCAH from PCOS clinically particularly because many NCAH will have ovarian androgen excess. Treatment implications of PCOS are different from NCAH, which states that PCOS and NCAH are not the same but present with overlapping features.

Do menopausal women with higher AMH levels have more luteinization?

It is frequently assumed that androgens drive luteinization in women, including in menopausal women. Despite this being a common assumption, there is little scientific basis for this claim. In premenopausal women, the ovaries are primarily secreted by androgens, while in menopausal women, the ovaries can also respond to other factors such as progesterone and estradiol. The ovarian response to luteinization in menopausal women is not well understood and may be influenced by factors such as age, BMI, and hormonal status.

Kisspeptin and neurokinin in PCOS

The central regulator of the reproductive axis is the secretion of GnRH by the hypothalamus, and recent years have provided much information on how that is controlled. Specifically, a population of neurons that innervate to the GnRH neurons has been identified, so-called because they co-express kisspeptin, neurokinin B and dynorphin. These act directly on GnRH neurons, and there is emerging data in human that they regulate key aspects of reproductive function, including ovulation. The availability of neurokinin B antagonists has also led to studies exploring their potential for therapeutic benefit, including in PCOS. In this talk, I will introduce this pathway and illustrate the key clinical findings so far available.
Long-Acting GnRH antagonists – a good choice?

A significant development for women with PCOS has been the increasing use of GnRH antagonists to stimulate the ovaries in IVF cycles. These cycles carry a lower risk of Ovarian hyperstimulation Syndrome (OHSS), which is even further reduced if a GnRH agonist trigger is used. For women with PCOS, the development of longer-acting GnRH antagonists raises the prospect of down regulating the hypothalamic-pituitary-gonadal axis, normalising the metabolic environment and synchronising follicular development before FSH stimulation, while retaining the ability to use an hCG trigger to end an oestrus LH surge, if too many follicles develop. Limited data exists regarding the benefits of the long acting GnRH antagonist (Degarelix). Papapanaki et al. published a proof of concept paper demonstrating the effectiveness of midultral administration of 80mcg Degarelix sc before the start of the cycle in suppressing the LH surge in 5 egg donors and 5 infertile women. A GnRH agonist trigger was used for the egg donors, whereas an hCG trigger was used in the infertile women. Five blastocysts were transferred in the infertile group and 3 women had ongoing pregnancies.

In a 3 armed, placebo double blind randomised controlled trial in 80 egg donors, midluteal and day 6 Degarelix administration was compared to baseline placebo administration or a flexible standard GnRH antagonist cycle. An hCG trigger was used in all arms. When Degarelix was administered in the midluteal phase, FSH, LH, estradiol and progesterone were comparable to the placebo group although follicle size, recruitment and pregnancy rates were comparable across the 3 groups.

Egg donors tend to be young and healthy with optimal metabolism, whereas women with PCOS may benefit more from down regulation of the hypothalamic-pituitary-gonadal axis. A trial has been registered comparing Day 1 administration of Degarelix compared to a standard flexible antagonist cycle in PCOS women. The trial intended to randomise 80 PCOS patients who had previous OHSS and fertility problems. At this point it has been partially reported in abstract format. The results suggested that there may be a higher pregnancy rate (30% vs 30% (p=0.98)) and fewer numbers of mature oocytes and a lower OHSS rate (5% vs 20% (p=0.05)) in the Degarelix group. 

Given the promise of this study, it is surprising that further trials haven’t been conducted. The major reasons are safety concerns for the fetus. Currently Degarelix is contraindicated in women who are pregnant or trying to conceive. This is because of an increased in embryonic lethality and abortion in animal studies although there is little data in humans. Thus although promising, several factors need to be addressed before the use of a long acting GnRH antagonist can be recommended. Safety concerns for the fetus must be tackled to prevent harm. A proven benefit in pregnancy rates, outcomes and convenience over flexible antagonist cycles must be shown in PCOS women at risk of OHSS. Large well designed, RCTs then need to be performed to validate any preliminary promising findings.

Currently, the jury is out regarding the future use of long acting GnRH antagonists. They are safe, easy to use, long acting GnRH antagonists may improve outcomes for PCOS women and it is an exciting to watch developments in this area of reproductive medicine.

Sleep Apnea

Sleep-disordered breathing is not uncommon in women, and especially with PCOS and pregnancy. The purpose of this talk will be to highlight the importance of recognizing it early, and understanding why early recognition can prevent complications in later life, and during pregnancy.

The lungs have a high minute ventilation during pregnancy which compensates for a lot of the compromise that the diaphragm (elevated by 4 - 5 cm) causes. Cardiac output is also increased, with reduction of the pulmonary and systemic vascular resistance. 

Simple questionnaires like the STOP-BANG can identify patients who could be at high risk of sleep apnea, and testing has moved to the home. Simple tests like the Apnoealink can be performed at home, and even stops like the NightOwl will be the future of simple home sleep studies.

Insomnia is an equally common problem and needs to be dealt with appropriately, less with drugs, and more with non-pharmacological methods. We will also review the simple measures to treat sleep apnea when it’s mild to moderate, and of course the importance of nasal CPAP in severe obstructive sleep apnea.

What is New in Gestational Diabetes

The DIF estimates that 1 in 6 of the 20 million annual live births (16.3%) occur to women with some form of hyperglycemia; 16% of these relate to diabetes in pregnancy; 84% to GDM. Asian people have higher risk of GDM (18.9%) compared to the rest. According to the IADPSG the ideal BGL in PCOS women with polycystic with almost twice the risk of large-for-gestational-age babies, increased fetal adiposity, neonatal hyperinsulinemia and preeclampsia, and a 50% higher risk of perinatal morbidity; delivery and shoulder dystocia. The recent publication of the Hyperglycemia and Adverse Pregnancy Outcome Follow Up Study (NAP0 FUS) provides further evidence regarding the adverse effects of PCOS on maternal and infant health, including Type 2 Diabetes in the mother and diabetes and obesity in the offspring. As routine screening for GDM is not done, probably the undiagnosed gestational diabetes occurring in the past has resulted in the increased prevalence of diabetes in India. Universal screening therefore is essential.

Although multiple criteria exist for diagnosis of GDM, in India, the one step OHSPS procedure challenging women with 75 gm glucose and diagnosing GDM > 140 mgdl is simple, economical and feasible. Occasional random and 40% of patients respond to medical nutrition therapy (MNT) alone. Small, frequent meals with low glycomic index are necessary. Moderate intensity exercise is beneficial. As insulin does not cross the placenta, an insulin sensitive agent is used with GDM. Ultra-long acting analogue-deglucagon has a dedicated clinical trial on going for use in pregnancy (ESPECT), results of which may be out by 2024.

The chase for making the bolus insulin profile more close to physiological mealtime insulin resistance, has lead to the development of ultra fast acting insulin analogs. The era of ultrafast acting insulins and is currently approved in 35 countries (including India) and launched in 11 countries. Metformin is a suitable alternative in those who refuse to fail to comply with insulin, although many bodies recommend it as a first line agent. Continuous glucose monitoring (CGM) identifies glycemic excursions that may lead to increased HbA1c and SMBG and may be recommended when patients are unable to achieve target glucose levels with SMBG alone.

CGM can reduce macromics and neonatal hyperglycemia in pregnancy complicated by type 1 diabetes. Current updated evidence suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes.

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Although multiple criteria exist for diagnosis of GDM, in India, the one step OHSPS procedure challenging women with 75 gm glucose and diagnosing GDM > 140 mgdl is simple, economical and feasible. Occasional random and 40% of patients respond to medical nutrition therapy (MNT) alone. Small, frequent meals with low glycomic index are necessary. Moderate intensity exercise is beneficial. As insulin does not cross the placenta, an insulin sensitive agent is used with GDM. Ultra-long acting analogue-deglucagon has a dedicated clinical trial on going for use in pregnancy (ESPECT), results of which may be out by 2024.

The chase for making the bolus insulin profile more close to physiological mealtime insulin resistance, has lead to the development of ultra fast acting insulin analogs. The era of ultrafast acting insulins and is currently approved in 35 countries (including India) and launched in 11 countries. Metformin is a suitable alternative in those who refuse to fail to comply with insulin, although many bodies recommend it as a first line agent. Continuous glucose monitoring (CGM) identifies glycemic excursions that may lead to increased HbA1c and SMBG and may be recommended when patients are unable to achieve target glucose levels with SMBG alone.

CGM can reduce macromics and neonatal hyperglycemia in pregnancy complicated by type 1 diabetes. Current updated evidence suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes. The overall health and economic benefits that accrue suggests that CGM is superior to SMBG among GDM pregnancies which might result in an improvement of maternal and fetal outcomes.

Metformin and PCOS

PCOS is a complex and chronic disorder with reproductive, metabolic and psychological implications. Propensity to rapid weight gain and adverse complications of this are common. Healthy lifestyle, prevention of weight gain and management of obesity are all critical in this condition.

Metformin plays a role in prevention of weight gain and management of metabolic complications, in addition to its health benefits. The recent literature in this area will be discussed along with the strengths and gaps in evidence.

More Abstracts Continued on page 09
Androgenetic Alopecia: Top trends

Combination 550mg of MI + 150mg of DCI twice daily was
DCI is synthesized when enzyme epimerase converts MI into DCI
Myo-inositol (MI) and D-chiro-inositol (DCI) are isomers of
MI depletion is responsible for the poor oocyte quality in PCOS
In PCOS, metformin, clomiphene and oral contraceptives
MI deficiency impairs FSH signalling and increases risk of ovarian
Ratio of MI and DCI is insulin dependent
High levels of DCI do not improve insulin sensitivity, hormonal
8. High dose combination therapy improved pregnancy rates and
7. Pregnancy rates higher with 150 mg of DCI twice daily
6. Combination improves insulin-receptor activity.
5. Combination minimally converts MI to DCI
4. Striking improvement in ovulation functions with combination
3. Decreased total testosterone and increased serum sex hormone
2. Reduced plasma glucose and insulin concentrations after three
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Inositols in polycystic ovary syndrome and pragmatic use of their combination treatment

- In PCOS, metformin, chlorpropamide and oral contraceptives inadequately achieve metabolic control, ovulation and euandrogenemia, respectively.
- Insulin-sensitizing agents have been the choice of therapy for PCOS
- Inositol, a six-carbon polyol, is an insulin sensitizing agent
- Myo-inositol (MI) and D-chiro-inositol (DCI) are isomers of inositol (formed by epimerization of inositol)
- DCI is synthesized when enzyme epimerase converts MI into DCI
- Ratio of MI and DCI is insulin dependent
- High levels of DCI do not improve insulin sensitivity, hormonal profile or regulates menses in PCOS (“DCI paradox”)
- Why MI/DCI combination in PCOS?
  1. Since MI and DCI regulate different biological functions, their synergy is more beneficial
  2. Reduced plasma glucose and insulin concentrations after three months treatment with combination compared with MI alone.
  3. Decreased total testosterone and increased serum sex hormone binding globulin with combination after 3 and 6 months of treatment.
- Striking improvement in ovulation functions with combination
- Combination minimally converts MI to DCI
- Combination improves insulin-receptor activity.
- Pregnancy rates higher with 150 mg of DCI twice daily
- High dose combination therapy improved pregnancy rates and reduced the risk of OHSS in women with PCOS undergoing IVF
- Combination MI 550mg + DCI 150 mg was associated with 60.45% higher pregnancy and 73% higher live birth rates compared with MI 550 mg + DCI 13.8mg dosage.
- Combination 550mg of MI + 150mg of DCI twice daily was associated with 81% lower risk of ovarian hyperstimulation syndrome (OHSS) compared with 550mg MI + 13.8mg of DCI dosage
- High dose combination therapy was associated with improved oocyte or embryo quality.

Bariatric Surgery in PCOS Women

It is now established that obesity contributes to over 200 co-
- Obesity also leads to insulin resistance, an important contributing factor of PCOS
- Considering that Asians have thin body frame, marginal weight gain of few kilograms alters the muscle-fat ratio significantly, resulting in reduced insulin sensitivity and type 2 diabetes mellitus or PCOS.
- An Australian study recommends bariatric surgery even in lower BMI women with PCOS.
- Bariatric surgery is known to improve insulin sensitivity immediately after surgery presumably through interplay of calorie restriction, gut hormone alteration, healthier gut microbiome secondary to change in gut homeostasis, altered biliary levels etc. In one of our study published in 2011, insulin resistance (HOMA index) reduced by 90% within 6 months of surgery.
- Multiple studies have shown that besides hormones and menstrual normalization, over 60% women have improved fertility with positive outcomes after 1-2 IVF cycles after bariatric surgery. Owing to concomitant improvement in metabolic syndrome, post bariatric women are likely to have safer pregnancy, delivery and healthier child.
- Considering its strong association with PCOS, Gynecologists can contribute significantly in identification of early metabolic syndrome even when the women presents with menstrual irregularity alone.

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Collaborations

PCOS: Tip of the Iceberg
In collaboration with Thane Obs-Gyn Society 30th Aug., 2020

The keynote speakers were Prof. Robert Norman, specialist in reproductive and Periconceptual medicine from the University of Adelaide, who spoke on Obesity and PCOS and Dr. Duru Shah spoke on the Impact of AMH in PCOS women. The interactive Q&A Session was immensely informative, which was followed by a panel discussion on case scenarios in PCOS women over the Ages, moderated by Dr. Sandhya Saharan, Vice President of TOGS. The panel projected cases ranging from Adolescence PCOS, infertility and covered different aspects of PCOS elaborately, which proved to be immensely beneficial to the delegates. This webinar was attended by 500 delegates.

Insta live Sessions

The PCOS Society of India in collaboration with “Conquer PCOS”, has organized a series of educational Instagram Live Sessions for women / girls on the subject of PCOS. These sessions create awareness and answer questions on PCOS. The physicians from different specialities answer questions on PCOS. The program was initiated on 28 August 2020, and conducted every Friday at 4.00 pm. with each session lasting for 45 mins duration. 15 sessions have been conducted so far and the sessions have been viewed by 3500 viewers. Topics on various aspects of PCOS have been covered. A big thank you to all our members who contributed in making these sessions a huge success.

Education Videos on PCOS

Irregular Mestrual Cycles

Sign & Symptoms of PCOS

Cosmetic Issues in PCOS

Watch More Videos on

PCOS: Connecting the Dots
in collaboration with Indian Dietetic Association, Mumbai Chapter 31st Oct., 2020

The webinar helped in demystifying the complexities of PCOS with simple solutions. Expert tips were given on how to achieve a sustainable and healthy diet. Practical tips on patient centered management of PCOS with an integrated approach were given by the field experts. The event was attended by 1000 + delegates.

Follow us on https://www.instagram.com/pcossocietyindia/
Upcoming Events

Masterclass:

“Elective Freeze-All” in PCOS

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

20th - 21st March 2021 | 3:00 - 9:00 p.m.

Session I: Elective Freeze-All Concept
- Why Freeze all?
- Do stimulation Protocols affect the quality of oocytes and embryos?
- Should we freeze D3 or D5 embryos?

Session II: Vitrification and Warming
- Principles of Vitrification and Warming
- Safety and Concerns about contamination in open v/s closed system
- Comparing fertilization and cleavage rates in fresh v/s vitrified embryos

Session III: Endometrial Preparation For Frozen Thaw Cycles
- Which protocols of endometrial preparation give the best results?
- Which molecules are most effective during endometrial preparation?
- Which is better: the natural cycle or the artificially prepared cycle?

Session IV: Synchronizing The Endometrium And Embryo
- Why do we synchronize?
- How do we synchronize in patients with regular & irregular cycles?
- How do we synchronize for D3 / D5 embryos?

Session V: Embryo Storage
- The current scenario of embryo storage
- Transporting embryos from one site to another
- Handling unclaimed embryos... the legal and ethical aspects

Session VI: Children Born After Fresh v/s Frozen Embryo Transfer
- Pregnancy outcomes and Live Birth rates
- Perinatal outcomes
- Long term outcomes

Session VII: Oocyte Vitrification
- Indications for Oocyte Vitrification
- Challenges in Oocyte Vitrification
- In-Vitro Maturation and Vitrification

Email: thepcossociety@gmail.com | Website: pcosindia.org
For further queries contact us on +91 98332 25280 / +91 98192 19787
https://www.pcosindia.org/expert-course.php

Certification only for
PCOS Society Members

6 Modules handcrafted by
Dr. Duru Shah & Dr. Madhuri Patil

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Starting January 2021

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every Monday...

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Convenors: Dr. Duru Shah | Dr. Madhuri Patil
Co-ordinators: Dr. Sujata Kar | Dr. Sarita Bhalerao

Register Today
https://www.pcosindia.org/become_a_quiz_member.php
**In Obese PCOS patients, Prevalence of insulin resistance approaches 80%**

Altered metabolism of inositol or IPG

Contributes to the insulin resistance

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**NORMÖZ DS**

MI 1.1gm, DO 27.6 mg, Chromium Picolinate & Vitamin D₃ tab

**Double Strength for Effective Action in Obese PCOS**

A study on 50 overweight women with PCOS with MI+DCI (40:1) for 6 months concluded that

Combined administration of MI and DCI in physiological plasma ratio (40:1) should be considered as the first line approach in PCOS overweight patients

Significantly better results in weight reduction, resumption of spontaneous ovulation and spontaneous pregnancy compared with metformin in polycystic ovarian disease patients

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**From Preconception Pregnancy to Lactation,**

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Calcium carbonate 1350 mg, Vitamin D₃ 300 IU, Methylcobalamin 15 mcg, L-lysine HCL 1800 mg, Pyridoxal 5’phosphate 10 mcg

The High Potency Calcium with Extraordinary Power of Vitamin D₃, A Active Form of Vitamin

Nutritional supplement from pregnancy to lactation

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**CARNISURE XT**

L-carnitine 500 mg + L-arginine 300 mg + L-lysine 250 mg + CoQ10 30 mg + Vitamina E 0.35 mg + Zinco 15 mg + Mangan 45 mg + Vitamina C 150 mg + Folic Acid 800 mg + Niacina 50 mg + Pantothenica Acid 30 mg

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