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VOLUME -1

# FERTILIS

10<sup>th</sup> August, 2019

An  
Initiative by  
Indian Fertility Society  
& Inter Medics



## Messages



### **Dr Gouri Devi**

President  
Indian Fertility Society

Dear Friends,

It gives me immense pleasure to introduce our new e-bulletin "Fertilis". This is an attempt to approach the dilemmas in the management of infertility. The topics covered will be the ones which commonly present with controversies.

I sincerely hope that this endeavour by SIG, Clinical Embryology, Indian Fertility Society will be helpful in decision-making.



### **Dr Pankaj Talwar**

Secretary General  
Indian Fertility Society

Dear Friends,

It gives me a great sense of pleasure and pride to introduce our new e-bulletin "Fertilis". This is designed to discuss the topics in the field of assisted reproductive technology, which are still controversial. The final word has not been said on these topics making it all the more important to address these topics.

We have tried to do an extensive literature search about these topics and make the reader aware of the pros and cons of scientific and ethical embryology practice.

In the end, I congratulate the efforts of SIG, Clinical Embryology for this much needed initiative.

## Special Interest Group (Clinical Embryology)

### **Dr Sarabpreet Singh**

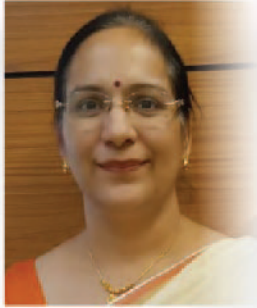
Convenor  
Indian Fertility Society  
(Series Editor - FERTILIS)

### **Gaurav Kant**

Co-Convenor  
Indian Fertility Society



# Which is the Ideal Day of Embryo Transfer?



**DR ANEESHA M GROVER**

MBBS, DNB



**DR SARABPREET SINGH**

MBBS, MD  
ESHRE - Certified  
Sr. Clinical Embryologist

More than 35 years have elapsed since the first IVF baby, yet the optimal developmental stage for embryo transfer is still the subject of debate. A lot of research has been conducted to determine the ideal stage of embryo development at transfer, the number of embryos to be transferred, etc.

## Why Day 5 transfer is preferred?

- A. **Improved Implantation Rates:** Blastocyst stage enables transfer of fewer, but higher quality embryos resulting in increased implantation rates.
- B. **Reduces Multiple Pregnancy Rates:** As fewer embryos are transferred.
- C. **Physiological Synchronization:** Day 5 embryos offer the advantage of physiological synchronization with the uterine endometrium resulting in better implantation rates.

## Why Day 3 transfer may be better?

- A. **More time for maternal-embryo cross talk :**

The process of implantation involves a crosstalk between embryo and the endometrium. It involves secretion of unique signals like miRNAs by both the embryo and the endometrium. These adjust the pace of their development. Chemokine receptors required for implantation get expressed on the endometrium only in the presence of the embryo. Day 3 transfer provides adequate exposure of the embryo to the endometrium thus helping to enhance endometrial receptivity.

- B. **Lesser risk of missing the window of implantation :**

Ovarian stimulation results in supra physiological levels of estrogen and progesterone that enhances endometrial development. The endometrium is advanced to such an extent that a Day 3 endometrium of a stimulated cycle may be equivalent to a Day 5 endometrium of a natural cycle. Thus, day 3 transfer reduces the risk of missing the window of implantation.

- C. **Avoidance of disadvantages of extended culture :**

Day 5 transfers imply extended exposure to in-vitro culture. There are concerns whether and to what extent in-vitro conditions mimic the in-vivo environment. The effect of extended culture on the embryo is incompletely understood including possible epigenetic changes, which can result.

A Day 3 embryo with <5 cells, <15% fragmentation and /or multi nucleation had a lower implantation rate when transferred on Day 5 as compared to when they are transferred on Day 3 due to the loss of their developmental competence with extended culture. In fact, Alikani et al (2000) observed a 33% pregnancy rate when these embryos were transferred on Day 3 but they failed to achieve pregnancies after Day 5 transfers. Thus, extended culture should be limited to only those embryos, which demonstrate optimal development during the first 3 days of culture.

Embryos resulting from oocytes with cytoplasmic anomalies such as vacuoles and severe granulations also do better with day 3 embryo transfers compared to day 5.

Additionally, in extended culture, not all embryos reach the blastocyst stage. Thus, fewer numbers of embryos are available for cryopreservation and future use.



#### D. Morphokinetics may help improve day 3 selection :

Morphokinetic assessment of the early embryo using time lapse imaging may help select embryos who have a good potential for blastocyst formation and implantation. Desai N, et al, demonstrated use of kinetic markers such as: a) time to syngamy (tPNf), b) time to t2, t3, t5, t8 and c) the interval from syngamy to the first cleavage in defining an embryo's competence to implant. Thus, best embryos with the highest potential to implant can be selected at Day 3, avoiding the drawbacks of extended culture.

### Why a day 5 transfer may be better?

A.

#### Lesser risk of aneuploidy

A high rate of aneuploidy is seen at the cleavage stage. The rate of aneuploidy in a cleavage stage embryo is as high as 75% whereas in a blastocyst, it is 25%. Thus, the probability of transferring a euploid embryo is much higher in a day 5 transfer.

### Possible long-term implications of day 3 and day 5 transfers :

#### Cleavage stage transfers [Day 3 transfer]

There are reports suggesting increased risk of small for gestational age [SGA] babies.

SGA is associated with complications like: perinatal asphyxia, meconium aspiration, hypoglycemia, polycythemia, hypothermia etc.

Neurologic prognosis for SGA infants is good but they are at increased risk of adulthood chronic diseases, including hypertension and cardiovascular disease.

#### Blastocyst stage transfers [Day 5 transfer]

There are reports suggesting increased risk of perinatal complications like miscarriage, monozygotic twinning, preterm births, perinatal mortality, large for gestational age [LGA] babies and congenital malformations.

LGA predisposes to birth trauma, hypoglycemia, hyperviscosity, and hyperbilirubinemia, respiratory distress, meconium aspiration, and polycythemia. LGA children remain taller and heavier throughout childhood and are associated with adulthood obesity.

### Evidence and guidelines

#### Martins et al [Meta analysis, 2017]<sup>7</sup>

- Day 5 transfer was associated with higher clinical pregnancy rate, live birth/ongoing pregnancy rate. However, Day 5 transfers were associated with a higher miscarriage rate.
- Day 3 transfer was associated with higher cumulative pregnancy rate as more number of surplus embryos available for subsequent transfers.

#### Cochrane reviews

- Cochrane Review 2005: did not support the change of practice from day 3 to day 5 transfers.
- Cochrane Review 2016: blastocyst transfer was not superior to cleavage stage transfer.

#### ASRM and NICE guidelines

Blastocyst transfers are associated with decreased number of embryos available for transfer and thus, there is an increased risk of failure to transfer and cycle cancellation.



## When should extended culture be considered?

Indications for extended culture upto blastocyst have been variably described.

### Olivenness et al (1994)

- ☐ Repeated failure of implantation
- ☐ Patients in whom multiple pregnancies had to be avoided (malformed uterus or risk of descending uterus)
- ☐ Patients where embryo development potential had to be assessed
- ☐ Replacement of supernumerary embryos frozen at the blastocyst stage

### Racowsky et al (2000)

- ☐ Recommended extended culture when four or more grade 1(8 cell) embryos are present on day 3

### Thum et al (2010)

- In women 38 years and under
- Presence of four 2PN pronuclear embryos and and at least two 8-cell and two 6-cell or 7-cell embryos of top quality on Day 3.
- In women 39 years and over At least 5 eggs retrieved, at least five -2PN and at least three 8-cell embryos and two 6-cell embryos of top quality on Day 3.

## Summary :

The ideal day of embryo transfer is still not known. There are advantages and disadvantages associated with both day 3 as well as day 5 transfer. Jury is still out. Newer modalities like morphokinetic studies of early embryonic development may add to understanding in future. Clinical judgement must be exercised while deciding day of transfer for a particular patient.

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Organised by



Theme: Beyond Tomorrow

**15th** Annual Congress of  
**Indian Fertility Society**  
**FERTIVISION**  
**2019** 6-8 December  
The Leela Ambience Hotel, Gurugram  
New Delhi | India

**First Announcement**



[www.fertivision2019.com](http://www.fertivision2019.com)

# Invitation

Dear Friends, Welcome to *FERTIVISION 2019*

On behalf of the Indian Fertility Society (IFS), we are extremely pleased to announce and cordially invite you to the much awaited academic event – the **15<sup>th</sup> National Annual Conference - Fertilvision 2019**, to be held on **6<sup>th</sup>, 7<sup>th</sup> & 8<sup>th</sup> December 2019** at Hotel **The Leela Ambience, Gurugram, New Delhi / NCR, India**.

This conference is aimed to provide the most comprehensive academic platform in the field of Infertility and Assisted Reproductive Technology (ART) befitting the theme of the meeting “Beyond Tomorrow”

Renowned and leading expert faculty from around the world would gather and deliver talks in our cutting edge scientific program which will not only enrich your current knowledge and clear all doubts faced in day-to-day clinical practice, but will also enlighten you about the latest innovations and ongoing research.

A large number of renowned international faculties have already confirmed their participations till date. The pre-congress workshops on 6<sup>th</sup> December are specially designed for informal in-depth training with hands on sessions on simulators and live, where ever feasible. There will be 4 simultaneous running streams on 7<sup>th</sup> & 8<sup>th</sup> December covering a wide variety of topics, enabling you to choose the deliberations specific to your area of interest and clinical practice. We are having a dedicated hall for the esteemed embryologist friends.

The best oral and poster presenters under various categories and the quiz winners will be honored with special awards and prizes. Do join us in large numbers and update your knowledge with most updated current standards in clinical practice, as well as get inspired to innovate further to overcome remaining enigmatic issues!

The three days of scientific program will encompass didactic lectures, keynote presentations, panel discussions and orations. There will be 9 Pre-conference workshops based on Ovulation Induction, Ultrasound, Andrology, Embryology, Hands on Embryo Transfer, Ovum Pickup and PGS and more. These workshops will be in addition to the special state of the art workshops by the faculty from IFFS and ESHRE. We expect delegates across India, Sri Lanka, Bangladesh, Nepal, Middle - East Countries and African Nations and the arrangements are being made to accommodate more than 2500 delegates.

The exhibition area will be one of the highlights of the conference. Exhibiting provides tremendous benefits to both participating industry and the society. Tea, coffee and lunch will be served confluent with the trade area to allow optimal interaction between the trade companies and delegates during beverage and lunch breaks.

We invite you to participate in the Fertilvision 2019 and exchange your expertise with more than 2500 specialists in the field of Assisted Reproduction.

We look forward to your active participation and suggestions for successful conduct of the conference.

**With Our Best Regards**



**Dr. M Gouri Devi**  
Organizing Chairperson  
FERTIVISION 2019



**Dr. Pankaj Talwar**  
Organizing Secretary  
FERTIVISION 2019

**and All Executive Committee of Current IFS team**



# Scientific Highlights

1

Fertivision 2019 Would be One of the Most Comprehensive Coverage on "Best Practices, Innovations and Progress in the Field of Infertility and ART" Being Conducted in India.

2

We Promise You Cutting Edge Academic Deliberations Delivered by Leading Renowned Expert Faculty from Around the world befitting the Theme of the Meeting "Beyond tomorrow"

3

In the Conference There Would Be 4 Simultaneous Halls Running with Legendary Faculty in Lead Interacting With You, Covering a Wide Variety of Topics, and Enabling You to Tailor the Program Especially to Your Area of Interest and Clinical Practice. We are Having a Dedicated Hall for the Esteemed Embryologist Friends.

4

Along With the Main Conference We are Having 9 Pre -Congress Workshops on 6th Dec 2019 Pertaining to the Burning Issue in ART.

5

We Welcome You and Offer You This Opportunity to Showcase Your Research Work on a Prestigious National Platform and Enhance Your CV.

6

Scientific Quiz for sharp talented young minds with primary rounds conducted by various IFS Chapters across the country and abroad

7

Several Prizes and Awards for Best Paper, Poster and Quiz winners

8

Enjoy the Evenings With Exciting Social and Cultural Program

9

Sightseeing Tours in and Around Delhi Organized Professionally by Leading Event Management Teams.

10

A Great Opportunity for All of Us to Amalgamate the Most Updated Current Standards in Our Clinical Practice and Look Beyond Tomorrow

Limited Seats

## Choose from 10 Pre Conference Workshops | 6 December

- 1) IFFS Workshop on Do's and Don'ts in Ovarian Stimulation
- 2) Reproductive Surgery
- 3) Ultrasonography Imaging In Infertility
- 4) Andrology & Semenology
- 5) Ovum Pickup and Embryo Transfer (With Simulators)
- 6) Cryobiology

- 7) Total Quality Management

**Pre Lunch Workshop (0900 - 1300 Hrs)**

- 8 A) Holistic Medicine and Patient Counselling

**Post Lunch Workshop (1400 - 1700 Hrs )**

- 8 B) Publish or Perish

- 9) PGT and Genomics

Early Bird Reg. Ends 1st September

## Registration Details

Category	Early Bird Fees Till 1st September 2019		Regular Fees Till 15th October 2019		Onspot	
IFS Member	INR 10500		INR 12500		INR 14500	
Non IFS Member	INR 12500		INR 14500		INR 16500	
Conference Registration plus Life Time IFS Membership	Embryologist	INR 14500	Embryologist	INR 16500	Embryologist	INR 18500
	Gynaecologist	INR 15500	Gynaecologist	INR 17500	Gynaecologist	INR 19500
PG Students (No Dinner)	INR 6000		INR 7000		INR 8000	
Accompanying Person	INR 10500		INR 11500		INR 12500	
Foreign Delegates	\$ 350		\$ 400		\$ 500	

Inclusive of 18% GST

Register at [www.fertivision2019.com](http://www.fertivision2019.com)



# Venue:

**The Leela Ambience Hotel, Gurugram  
New Delhi | India**



**The Leela Ambience Hotel & Residences** is located on the fringe of the Gurgaon Central Business District, fifteen minutes from Delhi's International Airport and thirty minutes from Central Delhi. In addition to 322 contemporary and world class five star deluxe rooms and suites, The Leela Ambience Gurgaon also features 90 residencies (with one, two and three bedroom) fully serviced luxury Residences.

Multi Award winning restaurants include; Multi-cuisine all day dining– Spectra, Italian – Zanotta, cucina Italiana, North Indian – Diya and whisky bar- Rubicon. The "Royal Club" is located on the 6th floor of the Hotel. The Royal Club features are 24 hour butler service, with evening cocktails and a Boardroom.

The 27,000 square feet, beautifully finished convention facilities, meeting and boardrooms were recently awarded the prestigious 5-Star deluxe "Best Luxury Hotel and Conference Centre – India".

This venue has been chosen with a lot of care and thought keeping in mind the comfort and also enjoyment of the delegates when visiting Delhi.

## Conference Secretariat

### **Indian Fertility Society**

302, 3rd Floor, Kailash Building,  
26, Kasturba Gandhi Marg  
C.P, New Delhi - 110001  
+91-9667742015, +91-9899308083  
+91-11-40018184



## Conference Manager

### **Conferences International**

Mr. Sumeet Ghai  
B-220/2, 2nd Floor,  
Opposite Kali Masjid, Savitri Nagar  
New Delhi – 110017  
Mobile: +91 9560493999

**fertivision2019@gmail.com**

# FERTIVISION

## 2019

6-8 December The Leela Ambience Hotel  
Gurugram, New Delhi, NCR | India

Organised by



### Registration Form

Title Prof/ Dr/ Mr/ Ms \_\_\_\_\_

Gender : Male ☐ Female ☐

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Institution \_\_\_\_\_ IFS Member No. \_\_\_\_\_

Correspondence Address \_\_\_\_\_

City \_\_\_\_\_ Pin Code \_\_\_\_\_ State \_\_\_\_\_

Mobile No. \_\_\_\_\_ Email \_\_\_\_\_

(All the above fields are mandatory)

Limited  
Seats

Choose from 9 Pre Conference Workshops | 6 December

Choose Any 1 Workshop

1)	<input type="checkbox"/>	IFFS Workshop on Do's and Don'ts in Ovarian Stimulation
2)	<input type="checkbox"/>	Reproductive Surgery
3)	<input type="checkbox"/>	Ultrasonography Imaging In Infertility
4)	<input type="checkbox"/>	Andrology & Semenology
5)	<input type="checkbox"/>	Ovum Pickup and Embryo Transfer (With Simulators)
6)	<input type="checkbox"/>	Cryobiology

7)	<input type="checkbox"/>	Total Quality Management
Pre Lunch Workshop (0900 - 1300 Hrs)		
8 A)	<input type="checkbox"/>	Holistic Medicine and Patient Counselling
Post Lunch Workshop (1400 - 1700 Hrs)		
8 B)	<input type="checkbox"/>	Publish or Perish
9)	<input type="checkbox"/>	PGT and Genomics

### Registration Fees

Inclusive of 18% GST

Please tick the appropriate checkbox

Category	Early Bird Fees Till 1st September 2019		Regular Fees Till 15th October		Onspot	
IFS Member	INR 10500	<input type="checkbox"/>	INR 12500	<input type="checkbox"/>	INR 14500	<input type="checkbox"/>
Non IFS Member	INR 12500	<input type="checkbox"/>	INR 14500	<input type="checkbox"/>	INR 16500	<input type="checkbox"/>
Conference Registration plus Life Time IFS Membership	Embryologist	INR 14500 <input type="checkbox"/>	Embryologist	INR 16500 <input type="checkbox"/>	Embryologist	INR 18500 <input type="checkbox"/>
	Gynaecologist	INR 15500 <input type="checkbox"/>	Gynaecologist	INR 17500 <input type="checkbox"/>	Gynaecologist	INR 19500 <input type="checkbox"/>
PG Students (No Dinner)	INR 6000	<input type="checkbox"/>	INR 7000	<input type="checkbox"/>	INR 8000	<input type="checkbox"/>
Accompanying Person	INR 10500	<input type="checkbox"/>	INR 11500	<input type="checkbox"/>	INR 12500	<input type="checkbox"/>
Foreign Delegates	\$ 350	<input type="checkbox"/>	\$ 400	<input type="checkbox"/>	\$ 500	<input type="checkbox"/>

Inclusive of 18% GST

#### Conference Registration Fees Includes

- 18 Hrs of World Class Academic Program with Access to Best & Brightest International & National Faculty
- 3 Lunches and 6 Tea / Coffee Served During the Conference on 6, 7 & 8 December
- Banquet Dinner on 7 December
- Conference Kit (Including Bag, Badge, Notepad, Certificate & Pen)
- 1 Pre Conference Workshop
- Accompanying Person is Entitled for Food Coupons Only

#### Cancellation Policy

- Cancellation till 31st October, 2019 – 50% Refund.
- Cancellation from 1st November, 2019 – No Refund.
- All refunds will be made after the congress.

Cheque / Draft No. \_\_\_\_\_ Total Amount \_\_\_\_\_

Note: Kindly email us bank deposit slip / UTR number once you made the payment for our record.  
Payment confirmation will take 7-10 working days post deposit of cheque, DD or RTGS

3. To Register online log on to [www.fertivision2019.com](http://www.fertivision2019.com)

#### Mode of Payment

1. Bank Draft/Cheque - To be made in favor of  
"INDIAN FERTILITY SOCIETY"

2. Bank Transfer Details

IFS Account Name : Indian Fertility Society

Account Number: 50562010067180

IFSC Code : ORBC0100179

Bank Name: Oriental Bank of Commerce

Branch: Connaught place, New Delhi- 110001

#### Congress Manager's

Mr. Vikas Sharma  
Conferences International  
B-220/2, 2nd Floor,  
Opposite Kali Masjid, Savitri Nagar  
New Delhi – 110017  
M: +91-9560493999  
Email: fertivision2019@gmail.com



Please send Registration Form along with cheque / draft at the following address

[www.fertivision2019.com](http://www.fertivision2019.com)