

Indian FERTILITY Society

SYNAPSES

HYSTEROSCOPY IN REPRODUCTIVE MEDICINE

Hysteroscopy is the gold standard technique for uterine factor evaluation, enables direct visualization of the uterine cavity and as well as the treatment of any detected abnormality

Types of hysteroscope

1. **Diagnostic hysteroscope**, a single sheath for inflow, Narrow- 3.5 mm- minimal dilation of the cervix.



2. **Operative hysteroscopy** needs separate sheaths for inflow and outflow. Larger diameter, 7-10mm, allows space for instillation of media, for telescope and for operating device



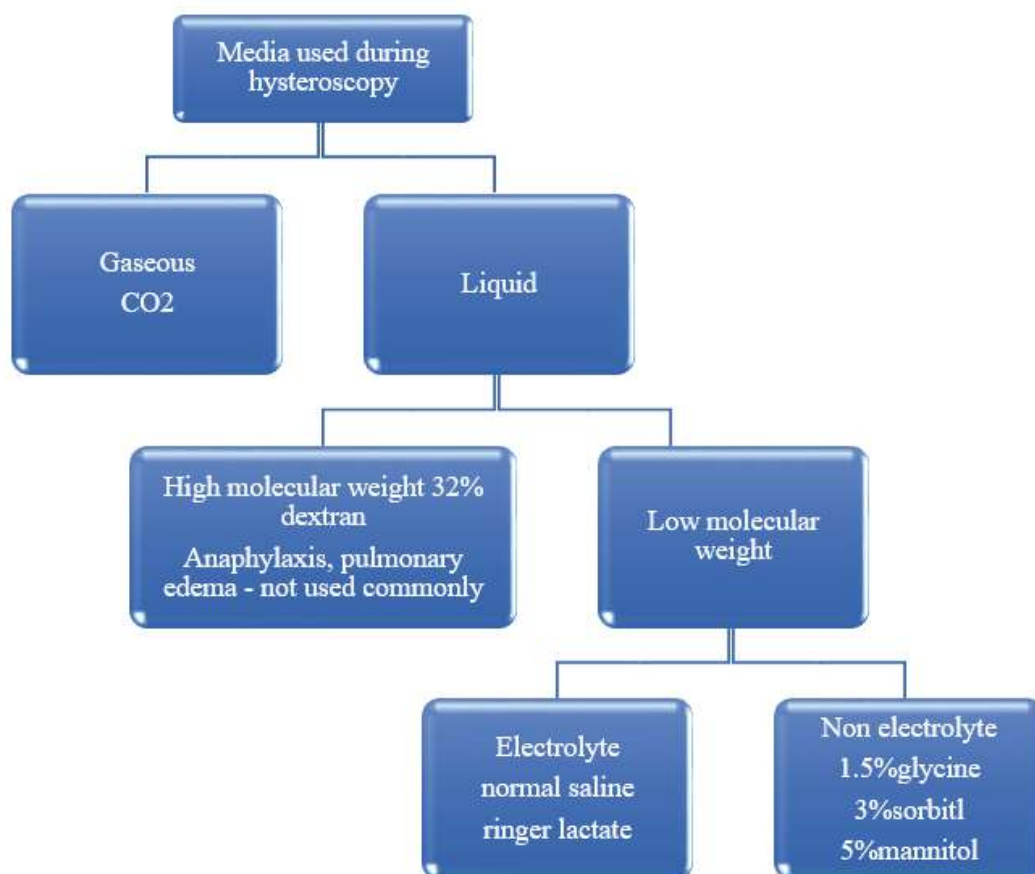
3. **Resectoscope** - For major operative procedures, diameter 9mm with outer sheath, continuous flow operating hysteroscopes, incorporate a working element that moves an electrically activated wire loop.



Hysteroscopy showing normal uterine cavity with bilateral ostia in same line.

Indications of hysteroscopy in Reproductive Medicine

Diagnostic	Therapeutic
Recurrent implantation failure	Polyp
Recurrent Pregnancy loss	Submucous myoma
Difficult embryo transfer	Uterine septa
Abnormal HSG	Intrauterine adhesions
Infertility with Abnormal uterine bleeding	Tubal cannulation for proximal tube occlusion & fallopscopy



Media used in hysteroscopy ⁽¹⁾

Type	Advantages	Disadvantages and Safety Precautions
CO ₂ gas	Ease of cleaning and maintaining equipment Clear view of cavity	Risk of air embolization, so not recommended To minimize: keep flow rate <100ml/min & IU pressure <100mmHg with Hysteroscopic Insufflator (Laposcopic Insufflator not used)
Electrolyte poor fluid (eg- glycine 1.5%; sorbitol 3%; mannitol 5%)	Used with Monopolar devices	Excessive absorption leads to hyponatremia, hyperammonemia and decreased osmolality, pulmonary and cerebral edema
Electrolyte containing fluid (0.9% NaCl)	Readily available, isotonic Media of choice during diagnostic hysteroscopy & Operative cases where mechanical & Bipolar energy	Chances of pulmonary edema & CHF reduced with this media but still possible

Best time to perform hysteroscopy

First half of menstrual cycle to avoid the increased endometrial thickness that can impair optimal visualization.

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Evidence based

Women **should not be offered hysteroscopy as part of the initial investigation** unless clinically indicated, because the effectiveness of this technique on improving reproductive outcome has not been established. ⁽¹⁾

Hysteroscopy allows the **diagnosis of unsuspected intrauterine abnormalities in infertile women in almost 50% of cases with a normal ultrasound/ HSG, which may potentially hamper the implantation rate after IVF/ICSI.** ⁽²⁾

Hysteroscopic removal of submucous fibroids may be beneficial in improving the chance of pregnancy in women with otherwise unexplained subfertility. ⁽³⁾

A multicentre RCT of women with more than two implantation failure (**the Trophy trial**) shows no significant improvement of IVF outcome in a population who underwent pre-IVF hysteroscopy compared with controls. ⁽⁴⁾ More studies are required to prove the same.

Several observational studies indicate that **hysteroscopic septum incision** is associated with improved clinical pregnancy rates in women with infertility. ⁽⁵⁾

Proposed mechanisms of beneficial effects of hysteroscopy

- **Irrigation of the cavity** - beneficial effect on implantation and pregnancy rates, saline removes harmful endometrial anti-adhesive glycoprotein molecules.
- **Allows easier embryo transfer** due to the passage of the tip of the hysteroscope through the cervical canal with the lysis of cervical adhesions, as well as the possibility of studying the course and morphology of the cervical canal.
- **Mechanical manipulation of the endometrium** may enhance receptivity by modulating the expression of gene encoding factors required for implantation. ⁽²⁾

Contraindications - Absolute contraindications include acute PID, active herpes infection, pregnancy, medically unstable patients.

BSGE/ESGE guideline on management of fluid distension media in operative hysteroscopy. ⁽⁶⁾

What amount of fluid overload should be considered safe when undertaking hysteroscopic surgery?

A maximum fluid deficit of 1000 ml should be set when using a hypotonic solution in a healthy woman and surgery immediately stopped on reaching this limit.	C
A maximum fluid deficit of 2500 ml should be set when using an isotonic solution in a healthy woman and surgery immediately stopped on reaching this limit.	GPP

Lower thresholds for fluid deficit should be considered in the elderly and women with cardiovascular, renal or other co-morbidities. Suggested upper limits are 750 ml for hypotonic solutions and 1500 ml for isotonic solutions although these limits may need to be reduced depending upon the clinical condition of the woman during surgery.	GPP
A fluid deficit of more than 1000 ml should be used as threshold to define fluid overload when using hypotonic solutions in healthy women of reproductive age.	C
A fluid deficit of 2500 ml should be used as threshold to define fluid overload when using isotonic solutions in healthy women of reproductive age.	GPP

What factors pre-dispose to systemic fluid absorption?

Surgeons should understand the factors that can lead to systemic fluid absorption. High intrauterine distension pressure, low mean arterial pressure, deep myometrial penetration, prolonged surgery and large uterine cavities increase the likelihood of systemic fluid absorption.	GPP
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How do complications from excessive systemic absorption of fluid distension media present and how should they be managed?

Surgeons should be cognisant of cardiovascular and neurological symptoms associated with systemic absorption of fluid distension media complications to allow timely recognition and treatment.	C
Asymptomatic hypervolemia with or without hyponatraemia should be managed by fluid restriction with or without diuretics.	GPP
The management of symptomatic hypervolemic hyponatraemia requires multidisciplinary involvement including anaesthetists, physicians and intensivists in a high dependency or intensive care unit. Initial treatment with 3 % hypertonic sodium chloride infusion is indicated to restore serum sodium concentrations to safe levels.	GPP

What preoperative measures can be taken to reduce fluid absorption?

Preoperative administration of GnRH agonists should be considered in premenopausal women before hysteroscopic resection of fibroids	B
Intracervical injection of dilute Vasopressin can be considered before dilatation of the cervix.	B

What intraoperative measures can be taken to reduce fluid absorption?

The intrauterine pressure needed for distension should be maintained as low as possible to allow adequate visualisation and kept below the mean arterial pressure.

B

How should fluid deficit be measured during operative hysteroscopy?

Automated fluid measurement systems are more accurate than manual measurement but they can still overestimate fluid deficit. Their use cannot guarantee safety but might be useful when undertaking complex hysteroscopic procedures where fluid absorption is anticipated.

D

Complications

Anesthesia related complications, pain (while negotiating the cervix), vasovagal reaction to cervical dilatation, and false passage within the cervix may be created by overzealous or misdirected hysteroscope insertion. Poor placement or vigorous manipulation of the tenaculum may result in a cervical laceration. Other complications include fluid overload, hemorrhage, uterine perforation, electrosurgical injuries, nerve injuries (peroneal nerve involvement).

Late complications include intrauterine adhesions.

Conclusion

Women should not be offered hysteroscopy as part of the initial investigation unless clinically indicated, because the effectiveness of this technique on improving reproductive outcome has not been established.¹

References

1. NICE. Fertility: Assessment and Treatment for People with Fertility Problems. National Institute for Health and Clinical Excellence, 2013 Guidelines
2. Di Spiezo Sardo, A & Bifulco, G. Efficacy of hysteroscopy in improving reproductive outcomes of infertile couples: a systematic review and meta-analysis. Human reproduction update, 2016; 22(4), 479-496.
3. Bosteels J, Kasius J, Weyers S, Broekmans FJ, Mol BW, D'Hooghe TM. Hysteroscopy for treating subfertility associated with suspected major uterine cavity abnormalities. Cochrane Database Syst Rev 2013
4. El-Toukhy T, Campo R, Sunkara SK, Khalaf Y, Coomarasamy A. A multi-centre randomised controlled study of pre-IVF outpatient hysteroscopy in women with recurrent IVF implantation failure: trial of Outpatient Hysteroscopy—[TROPHY] in IVF. Reprod Health 2009
5. Practice Committee of the American Society for Reproductive Medicine. (2016). Uterine septum: a guideline. Fertility and sterility, 106(3), 530-540.
6. Umranikar et al. BSGE/ESGE guideline on management of fluid distension media in operative hysteroscopy. Gynecological surgery, 2016, 13.4: 289.

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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

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 **15th National Annual Conference - Fertilvision 2019**, to be held on **6th, 7th & 8th 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 6th 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 7th & 8th 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

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

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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

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

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

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