



# IFS VISION

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### Dear Members

We are looking forward to our annual conference 'Fertivision 2015' scheduled for December 4<sup>th</sup> - 6<sup>th</sup>, an academic bonanza with recognized national and international faculty meeting at one platform to discuss recent advances, new innovations and established protocols in the field of infertility. In the last a few months IFS has been very active academically. We have formed guidelines for management of PCOS, held webinars on various topics in infertility which have been cast all over India. Our chapter strength has increased to 15. We have also successfully conducted the first batch of IFS fellowship. Our bulletin 'IFS Conversations' has been regularly posted to you and kept you updated. In recent days the ART bill has been screened by us and we have submitted our opinion on the same asking for clarifications and changes where we felt it was appropriate keeping both the doctor's and patient's interest in mind.

We hope to see you at 'Fertivision' and look forward to your contribution at this academic meet.

### Best Wishes

Sonia Malik

## From the Desk of the Web Editor...



### Dear Members,

This year the IFS website was changed and many innovative features introduced like online survey, discussion forum on ethical and legal issues in ART, helpline for both doctors and patients and a members area. The IFS Vision comes with recent innovations and studies in the field of infertility and discussions on legal and ethical issues across the globe. We have also taken out a interim report on the pan -india online survey conducted by IFS on tubal factor Infertility – Practises among the infertility professionals. This is the first Indian data to be presented. The survey is ongoing and can be accessed from the website for answering  
Hoping to see you at Fertivison 2015 in Delhi!

With Best Wishes  
Dr Surveen Ghumman Sindhu

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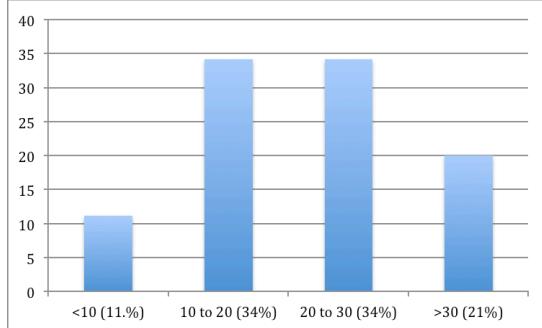
IFS Survey

## ***Web Survey on Tubal factor Infertility by IFS society***

(Conducted and compiled by Dr Surveen Ghuman, web editor, IFS)

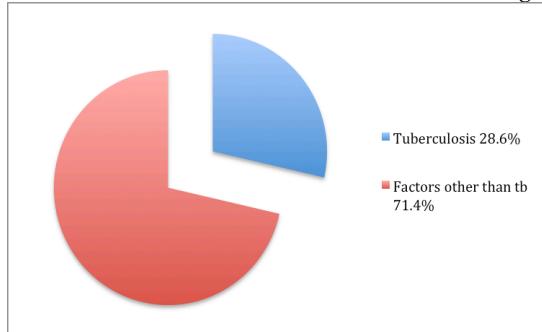
IFS conducted a web survey on 'Method of evaluation and treatment of tubal factor infertility'. The survey involved gynecologists and infertility practitioners panIndia. The idea was to bring forth an analysis of practices followed in management of tubal factor infertility in India. The survey is ongoing and available on the IFS website for doctors to answer. The analysis and interim report is as below.

### **1. What percentage of tubal factor infertility do you see among infertile women?**



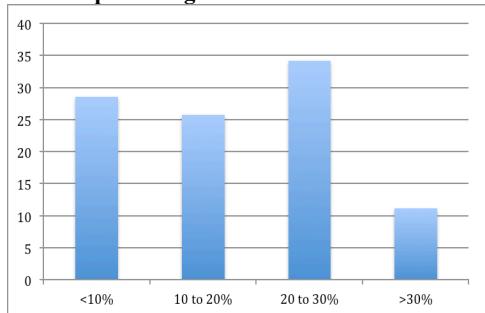
Most practitioners found an incidence of 10-40% of tubal factor infertility in infertile population

### **2. What is the most common cause of tubal blockage in your practice?**



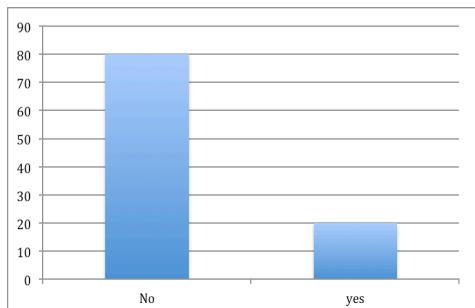
Commonly 71% women have causes other than tuberculosis to be responsible for tubal pathology

### **3. What percentage of woman with tubal factor had tuberculosis?**



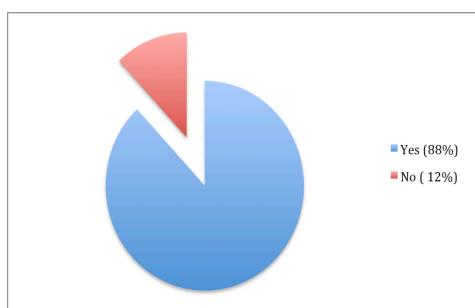
28% practitioners found only <10% incidence of tuberculosis in women who had a tubal factor. 26% found the incidence to be 10-20%. Majority ie 34% found the incidence to be 20-30% and 11% found it to be >30%.

#### 4. Testing of tubal factor as a primary investigation?



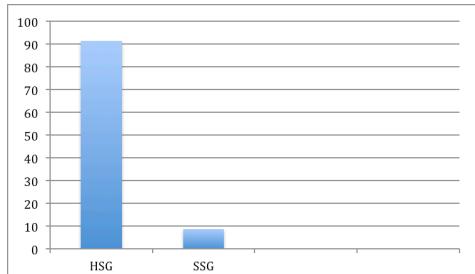
80% of practitioners will not screen for tubal factor as primary investigation but 20% however feel they must before they decide mode of treatment

#### 5. Testing for tubal factor before IUI?



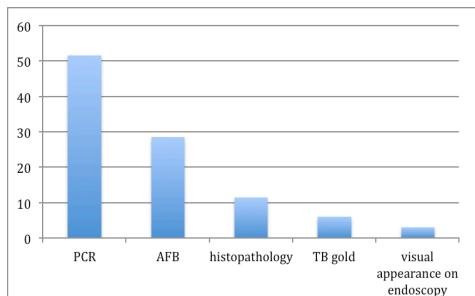
88 % of practitioners check tubal status before IUI

#### 6. Preferred method of testing tubes



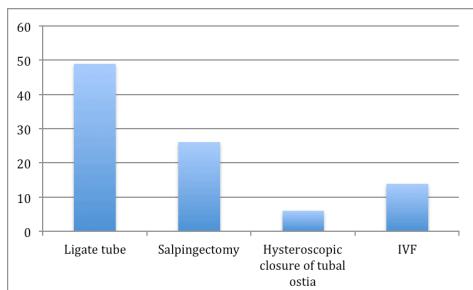
The preferred mode testing tubes is HSG with 91.4% practitioners. The rest use Saline salpingography.

#### 7. Method used for detection of tuberculosis



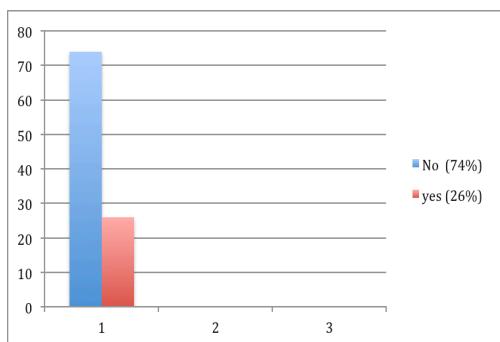
51.4% use PCR for detection of tuberculosis, 28.6% use AFB culture. 11.4% histopathology, TB gold in 6% and visual appearance in 3%.

**8. What method of treatment is advocated for woman with hydrosalpinx?**



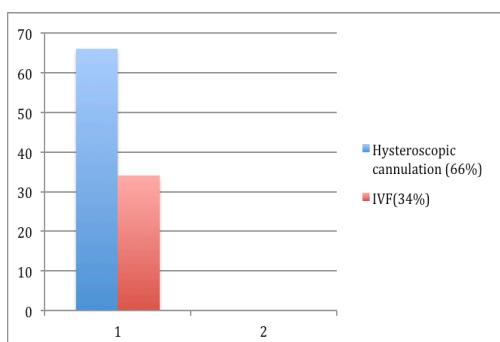
Mostly 49% practitioners ligate the tube, 26% remove tube and 6% do a hysteroscopic cannulation. 11% advice IVF without doing anything.

**9. Do you advise tubal surgery in blocked tubes?**



74 % practitioners do not believe in doing a tubal surgery for blocked tubes.

**10. Treatment for proximal tubal block**



Most practitioners 66% do a hysteroscopic cannulation for proximal tubal block

## RECENT RESEARCH

### *Whole-genome sequencing – A method to identify de novo mutations in embryos*

Scientists have shown for the first time that whole-genome sequencing (WGS) in IVF embryos can detect 'de novo' mutation. These findings are a significant step in developing advanced whole-genome sequencing as the ultimate screen to find the healthiest embryos through PGD. They were able to sequence over 95 percent of the genome and to detect up to 82 percent of de novo mutations. De novo mutations can be detected with such high sensitivity and an exceptionally low error rate using so few embryonic cells. De novo mutations are not inherited from either parent but arise spontaneously in the sperm and egg. They are disproportionately linked to various genetic diseases and may lead to severe intellectual disabilities, autism and epileptic encephalopathies. One of the main challenges remaining will be to interpret the detected mutations in terms of their clinical consequences and how to use the results in decision-making.

### *Human sperm and egg precursors created from stem cells for the first time*

For the first time, researchers have succeeded in creating human sperm and egg precursor cells from stem cells at the Gurdon Institute at the University of Cambridge. These precursors, called primordial germ cells, had been created before in mice but, until now, the human variant proved elusive. The precursor cells can be used to study what happens very early on in embryo development, and could have implications for research into ageing. The primordial germ cells could also be used to study why only certain traits are passed on to the next generation. During our lives, environmental factors such as smoking or diet can modify gene activity through epigenetic changes. In germ cells, some of these changes are 'reset'. This could tell us how to erase these epigenetic mutations.

### *Rising trend of ICSI - ICSI no more effective than IVF*

Using data from the US National Assisted Reproductive Technology Surveillance System, the researchers found that between 1996 and 2012, the incidence of ICSI during fresh IVF cycles more than doubled from 36.4 percent to 76.2 percent. The greatest increase was in cycles with no male infertility where ICSI use rose from 15.4 to 66.9 percent. A US study has found that despite increased use of ICSI over recent years, the technique is not associated with any improved reproductive outcomes over conventional IVF. The findings, published in JAMA, also indicated that ICSI might even have a detrimental effect in cases without male infertility. When male infertility was present, ICSI led to an increased likelihood of fertilisation but pregnancy, miscarriage and live birth were similar to traditional IVF. Furthermore, in cycles without male factor infertility, the use of ICSI resulted in small but significant reductions in implantation, pregnancy, live birth, multiple live birth and low birth weight rates compared with conventional IVF. Use of ICSI may improve fertilisation rates but not implantation or pregnancy rates in the setting of unexplained infertility, advanced maternal age, and low oocyte yield.

## ETHICS, LAW & ART

### *Parthenotes not covered by human embryo patent ban rules European Court – Impact on stem cell research*

A method of producing stem cells, cell lines and tissue from parthenogenetically-activated oocytes- parthenotes have a single set of DNA, they are technically unable to develop into human beings and should not be considered to be 'human embryos'. The Biotech Directive, excludes the 'human body' and embryos from patentability. The European Court of Justice (CJEU) has cleared the way for the patenting of human parthenotes for industrial and commercial purposes, clarifying the definition of 'human embryo' excluded from patentability in European Law. The decision has had significant consequences for embryonic stem (ES) cell research where cell lines are derived from embryos. Efforts to derive ES cell lines by alternative means avoiding potential ethical concerns - such as using parthenotes may now be preferred.

## *Thailand's New Laws on Surrogacy*

Thailand's parliament has passed a law banning surrogacy for foreign couples, after two scandals sparked worldwide attention last year. An Australian couple had allegedly abandoned their surrogate-born baby with Down's syndrome. A Japanese man was found to have fathered at least 15 children using different Thai surrogate mothers. Under the new legislation, only married heterosexuals with at least one Thai partner are allowed to use surrogacy services. The couples must also have been married for at least three years. Fees are not allowed for the service and surrogate mothers must be Thai and over 25 years old. Further to this, the surrogate mothers must be related to either the husband or wife seeking surrogacy. Anyone involved in commercial surrogacy, including agents, will face a maximum jail term of 10 years and a fine up to 200,000 Thai baht.

**Question:** Should commercial surrogacy be banned? Is banning an easy alternative to avoid burden of regulations?

## *Should the ART regulatory body have a legal duty to consider economic growth?*

Members of the House of Lords have expressed concern about a Government Bill that might compel the UK's fertility regulator, the HFEA, to consider economic growth when making its regulatory decisions. The wide-ranging Deregulation Bill was originally conceived as part of the Government's Red Tape Challenge, an initiative to reduce the burden of regulation and consider the importance for the promotion of economic growth of exercising the regulatory function. An amendment to the Bill has now excluded the HFEA as it introduces a commercialisation of Life and makes HFEA emulate those it is regulating.

## *Irish Supreme Court denies genetic mother birth certificate right- Need for legislation*

The Supreme Court of Ireland has ruled that the genetic mother of twins born to a surrogate cannot be included as the children's mother on their birth certificates, saying that it is for the Irish Parliament to legislate in this area. The Government appealed the decision, arguing that under Irish law the birth mother is always considered to be the legal mother, unless there has been adoption. Such a ruling could have implications for women using egg donors who might end up not being recognised as the legal mothers of their own children. The couple countered that birth mothers would still have legal rights until a declaration of parentage was made, and that most donations are made anonymously anyhow. Children have a constitutional right to have their genetic parents recognised in law. Legislation on assisted human reproduction, surrogacy and gamete donation is long overdue. It was argued that the complex social, ethical and legal issues relating to assisted human reproduction and surrogacy must be dealt with by the Oireachtas and that it is not for the courts to make laws.

### **STATISTICS**

## *No fertility care for 5,000 young breast cancer annually in UK- What about India?*

The majority of young breast cancer patients are not being referred for treatment which could preserve their fertility after chemotherapy, in UK. 34% of the specialists said they did not discuss fertility with patients at diagnosis. Eighty-eight percent of the women surveyed said they were not referred for fertility care. Three-fifths of female members of the public were unaware of the possible effects of breast cancer treatment on fertility. Extrapolating this statistic Breast Cancer Care estimates that 5,000 patients across the UK miss out on the necessary referral every year. In India it is probably much more. All healthcare professionals must talk to women about their fertility options at the point of diagnosis and clear referral system to fertility specialist must be in place

**Question :** Should omission of counseling for fertility preservation be considered as medical negligence on the part of oncologist?

## NEWS

### *Embryo Gene editing – Scientists not sure of safety*

The advent of the CRISPR/Cas9 system has revolutionised the field of genetic engineering enabling easy and precise alterations of the genetic code. As any germline changes introduced by the technique can be inherited, and you could exert control over human heredity with this technique. Altered germ lines would protect humans against cancer, diabetes and other age-related problems. Full knowledge of what those changes mean in terms of the overall genome are not known. It could cause unforeseen changes in a part of the genome other than the intended gene. Since such 'off-target effects' can be hard to detect, their consequences may only come to light after a baby is born. Furthermore, they fear gene-editing in embryos could lead to non-therapeutic gene enhancement leading to the creation of so-called 'designer babies'.

### *A changing trend to reproductive medicine – Mitochondrial donation voted for by Landslide majority in UK, regulations in place*

The House of Lords has voted by 280 to 48 to pass regulations permitting mitochondrial donation. The majority with which this was passed shows a changing outlook to reproductive medicine. This makes the UK the first country in the world to legislate for the use of mitochondrial donation techniques in treatment. The UK's fertility regulator, the HFEA, is now empowered to consider issuing treatment licenses to clinicians who wish to offer mitochondrial donation. The draft regulations state that fertility clinics will require a new licence to offer the techniques. They also state that it will be up to the Human Fertilisation and Embryology Authority to decide whether a treatment can go ahead on a case-by-case basis. Under the proposed regulations, children born from mitochondrial donation will have no right to identifying information about the mitochondrial donor. This contrasts with rules that allow children born from egg, sperm and embryo donation to access identifying information on donors when they turn 18.

## Conferences and Events

### *National*

1. Fertivision 2015, Annual Conference of Indian Fertility Society to be held on 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> December 2015 at Hotel Ashoka, Delhi
2. 20<sup>th</sup> National Conference of Indian Society of Assisted Reproduction (ISAR) to be held from 26<sup>th</sup> to 28<sup>th</sup> Feb 2015 at Brilliant Convention Centre, Indore

### *International*

1. 6<sup>th</sup> Congress of Asia Pacific Initiative on Reproduction 8<sup>th</sup> to 10<sup>th</sup> April 2016 at Jakarta, Indonesia
2. ESHRE Annual meeting 2016 in Helsinki, Finland from 3 to 6 July.
3. 72nd Annual Meeting of the ASRM Dates: October 15-19, 2016 Place: Salt Lake City, UT, USA
4. 24<sup>th</sup> World Congress on. Controversies in Obstetrics, Gynecology & Infertility (COGI). Amsterdam, Netherlands November 10-13, 2016.

## IFS Activities

Delhi 8th March on International women's day, the Indian Fertility Society released its Good clinical practice guidelines on the management of PCOS in India to a house full of gynaecologists. This has been published in the society's journal Journal of Fertility Science and Research. On the 9 th March, a similar function was organised at Kolkata. The functions were graced by Dr Jaideep Malhotra President ASPIRE at Delhi and Dr BN Chakravarti at Kolkata



Hands on IUI Workshop on 4th April 2015 organised by Reproductive Medicine Unit at Artemis Hospital Auditorium , Gurgaon under the Aegis of IFS. The CME was attended by 46 delegates, and all aspects of IUI along with ICMR Guidelines discussed in detail.

On 31<sup>st</sup> May along with inauguration a CME was organized at hotel Patliputra Ashoka, Patna .IFS, Bihar Chapter was inaugurated by Dr Sonia Malik, President IFS. Dr Sudha Prasad secretary, IFS delivered a guest lecture on “Infertility Management An overview”. Role of DHEA in Infertility was discussed in detail by Dr Sushma P. Sinha, Jt secretary. Dr Sonia Malik moderated a panel discussion on ‘Infertile couple -Strategic Approach”.



CME on "Dilemmas in Infertility" organized by Dr Surveen Ghuman under aegis of IFS and AOGD infertility committee on 26th August at Hotel Vikram. It was attended by 70 delegates. Lectures on Gonadotropins, Monitoring of IUI cycle, semenanalysis and fibroids in infertility were given by Dr Manju Puri Dr Surveen Ghuman Dr Pankaj Talwar and Dr Kuldeep Jain



Inauguration IFS – Kerala chapter Dr Sonia Malik, the national president of IFS, inaugurated the Kerala state chapter of the Indian Fertility Society on 18th September at Kochi. The function was held at Hotel Crown Plaza, Kochi. The inauguration was followed by a Panel discussion on 'How to improve the results in ART?'

Hands on Workshop on 'Enhancing Success in Intra uterine insemination' and Live demonstration of ICSI held at Kozhikode on 15th November 2015



IUI Workshop & Hands on Sperm preparation techniques ,was held on 23/11/2014 at Dr.Verma Hospital & Fertility Centre ,GWALIOR by IFS MP Chapter & Gwalior ObGy Society. Guest faculty are Dr.Shweta Mittal ,Dr.Leena Wadhwa ,from Delhi and Dr.Anju Verma ,& Dr.Yatindra Verma from Gwalior ,Dr.Shweta Kaul Jha from Indore ,have given Lectures on different aspects of IUI .Around 70 Gynaecologists attended the CME .Chief guest was Dr.G.S.Patel ,Dean G.R.Medical College