FPS(I)
Preserve_Create_Perpetuate

Newsletter - FSP(I)

February 2021 (Volume 1)

A very good day to all of you. This is the first edition of the Newsletter brought to you by Fertility Preservation Society of India. Let me start by making a wish for 2021 "Here's to a bright and healthy new year 2021 filled with new achievements, new inspirations and loaded with happiness. If 2020 has been the year of COVID then 2021 has to be the year of the COVID vaccine and COVID farewell.

So a bright start to the new year for us begins with an introduction of the new team in the Fertility Preservation Society of India starting with our dynamic leader who is famous for his clinical expertise and knowledge, President Dr. P.M. Gopinath.

From the President's desk

Dr. P.M. Gopinath

Dear Friends,

Distinguished senior colleagues and friends season greetings and a Happy New Year 2021.

Let me at the outset thank each and every one of you for having faith in me and electing me to lead the FPSI as President for the coming year. We have gone through the worst of times with COVID lockdown, and there is a light at the end of the tunnel in the form of vaccination again. We hope to have a better year. It is also our moral responsibility to advice other citizens to vaccinate themselves and maintain social distancing and continue to wear a mask.

I'm looking forward this year to have some dedicated involvement in FPSI and also to increase the membership in FPSI across Gynecology, Oncology Medical and Radiation Oncology and ART specialists.

We are planning to bring e newsletter and the first one will roll down by the end of January. Devika Gunasheela has been very helpful in this effort. We have the help from Pharma for the design and development of e news. I invite each and every one of you to continue a small startup on newer development in FP.

We are planning regional meetings every three months and the first meeting is being organized by North region followed by South and then East and West. It may be half a day program; a Sunday morning or Saturday afternoon. We will involve all other allied specialists and increase the membership drive simultaneously. If any of the faculty decides to conduct training programme in Fertility Preservation for Embryologists, please do inform me and we could organize this together.

I request each and everyone of you to continue to actively participate, contribute and become members to achieve newer heights for FPSI. Thank you and look forward to meet you all soon.

Best Wishes

P.M. Gopinath

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Dr. Sabhyata Gupta
Immediate Past President

Although 2020, put a firm lid on all our personal interactions in various meetings that would have been otherwise held in different venues in cities across the country, the net was abuzz with various workshops, seminars, journal clubs, and similar forums. FPSI's annual conference Fertiprotect 2020 was held on October 10th and 11th via a global virtual platform under the able leadership of Dr. P.M. Gopinath. Here are some of the highlights

FPSI Annual Conference Report –FERTIPROTECT 2020, October 10-11th, via Global Virtual Platform

ORGANISING CHAIRPERSON:	DR. P.M. GOPINATH
ORGANISING CO-CHAIRPERSONS:	DR. GEETHA HARIPRIYA,
	DR. RAJAPRIYA AYYAPPAN
ORGANISING SECRETARIES:	DR. PRIYA SELVARAJ,
	DR. KUNDAVI SHANKAR
JOINT ORGANISING SECRETARIES:	DR. PRIYA KANNAN,
	DR. MALA RAJ

MARCH 22ND–NATIONWIDE LOCKDOWN

Further meetings were held on virtual zoom platform/emails and telephonic conversations.

The conference was now moved to a global virtual platform with a decision to collaborate with the event management company called CHEKDIN with Mr. Mayank Harlalka and Ms. Sohnalee Priyadharshini

The proposed International faculty were immediately contacted via email

1. PROF.CLAUS ANDERSON
2. STINE GRY KRISTENSEN
3. BARBARA LAWSON
4. TERESA WOODRUFF
5. DEBRA GOOK
6. CATHERINE RACOWSKY
7. MARIE MADELEINE DOLMANS
8. PROF.DROR MEIROW
9. HEMASHREE RAJESH
10. DR. RANJITH RAMASWAMY
11. Dr. DENIS VAUGHN
12. Dr. CHRISTIANI AMORIN
13. DR. PRIYA BHIDE
14. DR. STEVEN FLEMING
15. DR. ETHIRAJ BALAJI
16. DR. JAVIER DOMINGO

The proposed national faculty were 50 members, including speakers and chairpersons. The confirmed International faculty were 9 members.

There were 348 attendees that joined the conference from India and other countries. The core objectives of this conference were:

1. To integrate and educate the main fraternity that will be responsible for conservation of fertility namely, oncologists, reproductive specialists, oncosurgeons, gynecologists and embryologists.
2. To collaborate scientifically with international and national healthcare faculty in order to be able to deliver the best treatment strategies for the patient population.

Hence, under the auspices of FPSI, our annual conference, Fertiprotect 2020 aimed to fulfill some of the core objectives by reaching out to a wide global audience and bring together some of the renowned names in the field of Oncofertility. “Perpetuation to Procreation” being the mantra of this conference, the scientific deliberations were one of a kind covering all aspects of what one needed to know in totality- from medicolegal aspects to treatment strategies and recent trends.

Owing to the pandemic, the conference became a global virtual experience staying true to its academic appeal without losing any focus nor having even the slightest of glitches. The lectures were specially selected to bridge gaps between awareness and clinical know-how and finally summed it all up with safe laboratory techniques that would spell success. Clear take home messages and the ability to embark on a safe oncofertility practice became a goal and reality.

Last but not the least-the wholesome experience of academic visual extravaganza came completely free of cost for the delegates and the faculty.

The following **sessions** took place with learning objectives. All sessions had eminent speakers both from national and international realm along with a program coordinator thereby ensuring no unnecessary delays nor relay issues.

Session-1 Pediatric oncology

Learning objectives:

A comprehensive overview of pediatric oncology covering all aspects of gonad friendly chemo-therapeutic and radiation techniques along with technical approach to gonadal protection.

Session-2 Breast Symposium

Learning Objectives:

An insight into the wide spectrum of breast diseases and establishing the boundary of benign versus malignant. The optimum time interval between diagnosis to initiation of therapy wherein fertility preservation could be well woven and its intricacies. What are the options and their setbacks against individual diagnosis and outcomes.

Session-3 Borderline ovarian tumors

Learning objectives:

What one should know about these tumors in the reproductive age group and how best to conserve ovaries for future fertility. The challenges faced by both the patient and the treating fertility specialist. The practical aspect of counselling of the families as well as the patient form the core of this session.

Session-4 FERTILITY PRESERVATION-EMBRYOLOGY ASPECTS- WORKSHOP

Learning Objectives:

For all aspiring clinicians, onco-fertility experts and embryologists it is imperative to know how to set up a lab for fertility preservation. Perfecting the now common modalities of oocyte and embryo freezing which is very essential for future retrieval towards best outcomes. Last but not the least, the practical aspects of ovarian tissue cryopreservation in a step wise approach. This gives a complete and thorough understanding of the basics as well as applied skills.

Session-5 Medico-legal aspects

Learning Objectives:

How to integrate fertility preservation among regular oncology services and establishing a good counselling narrative with transparency of what to expect in terms of future fertility outcomes. In addition, how to deal with medico-legal aspects for which one must always be prepared for makes this session a very important part of the learning.

Session-6 The Malignant Womb

Learning objectives:

Management of early uterine cancers in order to preserve fertility and thereafter using hormones to prepare the endometrium for implantation makes this session unique and challenging. Moreover, which stimulation protocols will give the best results and what evidence says in terms of managing pregnancy and beyond is an added treat.

The **inaugural address event** took place on October 10that 1.00 pm. The welcome address was delivered by the incoming president **Dr. P.M. Gopinath**. **Dr Padma Rekha** presented the secretary report.The Presidential address was delivered by **Dr. Sabhyata Gupta** followed by the Founder –President address by **Dr. Nalini Kaul Mahajan**. The Chief Guest of the evening was **Prof. Dror Meirow**. The vote of thanks was given by **Dr Priya Selvaraj** the organising secretary

The first day saw two keynote addresses and two orations, which were highly informative and well received. It covered applications of regenerative medicine in fertility preservation followed by ovarian tissue cryopreservation-results and objectives. The orations covered stimulation protocols in gynaecological cancers and the present and future of fertility preservation in the male.

The **second day of the conference** started with laboratory aspects of fertility preservation. It was a much-awaited session with international faculty delivering lectures on practical aspects of setting up lab and performing gamete cryopreservation. They touched upon enhancing results and improving live birth rates. Ovarian tissue cryopreservation was a much sought-after topic. Our adept international faculty gave us the much needed insights with videos of the processes thereby giving it the feel of a virtual workshop.

The major highlights were also medico-legal aspects, counselling and integration of fertility preservation services in practice. Endometrial cancer, borderline ovarian tumours and breast cancer were covered extensively. The conference ended with an oration on caring for patients with malignancies which encompassed every aspect right from treatment and conception until birth and after.

From the editorial desk, we did think that it was a good idea to start off with the Female Fertility Preservation Guidelines that ESHRE has brought out as recently as October 2020. So, please find below a summary of these guidelines. We have only included the recommendations that were labelled as Strong and Good Practice Points (GPP) and those which had a high supporting evidence. The complete set of guidelines can be found in

- ***ESHRE Gudeline : Female Fertility Preservation. Richard A. Anderson, Frederic Amant, Didi Braat, Arianna D'Angelo, Susana M. Chuva de Sousa Lopes, Isabelle Demeestere, Sandra Dwek, Lucy Frith,Matteo Lambertini, Caroline Maslin, Mariana Moura-Ramos, Daniela Nogueira, Kenny Rodriguez-Wallberg, and Nathalie Vermeulen. Human Reproduction Open, October 2020; pg. 1-17.***
- ***Female Fertility Preservation. Guideline of the European Society of Human Reproduction and Embryology. 2020 ESHRE Female Fertility Preservation Guideline Development Group.***

SUMMARY OF THE GUIDELINES

1. What information needs to be provided to women at risk of infertility?

STRONG
Clinicians should provide information to patients regarding **(i) The impact of cancer, other diseases and their treatments on reproductive function & future fertility;** **(ii) The clinicians should also discuss various fertility preservation options and the chances of pregnancy after gonadotoxic treatment.**
GPP
• **The information should be specific to the patients' needs and her cancer or other disease.** • **For young adults and adolescents, age-specific information and counselling should be provided.**

2. How should information on fertility preservation options be provided to patients?

STRONG
It is recommended to provide decision aids to patients who are considering Fertility Preservation

3. Is there a benefit of psychological support and counselling and are there particular groups that would benefit from it?

STRONG
• **It is recommended that all patients opting for fertility preservation are offered psychological support and the treatment starting from the treatment of cancer right up to the preservation of fertility, should be managed by a multidisciplinary team.**

Patient selection and pre-FP assessment

4. Which criteria can be used to select patients for fertility preservation?

GPP
• **Patients require an individual assessment of the cancer and the treatment risks on their future fertility as well as risks of fertility preservation interventions.** • **For women with overt premature ovarian insufficiency (POI), fertility preservation is not recommended.**

5. Which factors should be taken into account when estimating the individual risk of gonadotoxicity for a patient?

There are intrinsic & extrinsic factors that will need to be looked at, which will increase the risk of gonadotoxicity.
The Intrinsic factors are :
• **The health status of the patient** • **The metastasis to the ovary** • **The age of the patient** • **Assessment of the ovarian reserve**
The Extrinsic factors are :
• **The nature of treatment for the cancer or for the disease that the patient is suffering from and the risk of premature ovarian insufficiency.** • **The uterine radiotherapy and also other risks relating to pregnancy, e.g., cardiac toxicity**
A fully informed consent should be taken from the patient or the parent.

6. Is it relevant to do ovarian reserve testing, and for whom?

STRONG
• **Ovarian reserve testing should be done in all women opting for fertility preservation and the use of either antral follicle count (AFC) or anti-Mullerian hormone (AMH) is recommended over other ovarian reserve tests.** • **When estimating the risk of post-treatment POI, age, proposed gonadotoxic treatment type and dose, as well as pre-treatment AMH levels, should be taken into consideration.**
GPP
• **In women who have reduced ovarian reserve the advice needs to be individualized and the value of FP at this point of time is not very clear.** • **In women with endometriosis, or/and disease involving the ovary, the radicality of surgery influence ovarian reserve as measured by AMH levels; but its relevance to future fertility is unclear.**

7. How should ovarian stimulation be performed in cancer patients undergoing FP treatment?

STRONG
In situations, where cancer patients require fertility preservation, the most feasible and safe protocol that has been recommended is the GnRH antagonist protocol as it can be used in urgent situations, and it requires a very short time to be completed.
GPP
In women with oestrogen-sensitive diseases like for e.g., oestrogen-sensitive breast cancer, it is recommended that the letrozole should also be concomitantly used.

8. How should ovarian stimulation be performed in transgender men undergoing FP treatment?

GPP
For transgender men, the addition of letrozole to the antagonist protocol can be considered as it may enhance treatment adherence by reducing oestrogenic symptoms

9. Is oocyte cryopreservation effective and safe for FP?

STRONG
Oocyte cryopreservation is no longer considered as an experimental procedure and should be offered as an established option for fertility preservation
GPP
• **Women who have a partner should be given the option of freezing both the oocytes as well as embryos.** • **They should also be given accurate information about the centre-specific pregnancy rate, live birth rates as well and the expertise that is available.** • **They should be informed that success rates after cryopreservation of oocytes at the time of a cancer diagnosis may be lower than in women who do not have a cancer.**

10. Oocyte cryopreservation for age-related fertility loss

STRONG
Women who opt for oocyte cryopreservation for age-related fertility loss should be counselled thoroughly regarding the success rates, risks, benefits, costs and the long-term consequences of fertility preservation.

11. Is embryo cryopreservation effective and safe for fertility preservation?

STRONG
Embryo cryopreservation is an established option for fertility preservation

12. Should ovarian tissue cryopreservation (OTC) be used for fertility preservation?

STRONG
OTC can be offered to patients who are undergoing high & moderate risk gonadotoxic treatment, where time does not permit the oocyte/embryo cryopreservation and also if the patient asks for it.
GPP
• **OTC is an innovative method for ovarian function and fertility preservation in post pubertal women. But the risks and the benefits should be explained thoroughly to the patient.** • **Ovarian transposition can also be done at the same time in these women if they are going to undergo pelvic radiotherapy.** • **OTC is not recommended as the primary FP procedure in transgender men but can be proposed as an experimental option when ovaries are removed during gender reassignment surgery.**

13. Should vitrification versus slow-freezing be used for OTC for FP?

STRONG
Ovarian tissue cryopreservation should be done using the standard method of slow-freezing as it is well-established and has been performed for many years.

14. Which safety issues should be considered when replacing ovarian tissue?

STRONG
• **It is important to evaluate the presence of residual neoplastic cells in the ovarian tissue, using appropriate techniques in all cancer survivors before transplanting the tissue and patient should be informed about the same.** • **Ovarian tissue transplantation (OTT), can be done by laparoscopy at the orthotopic site.** • **OTT is not recommended in cases where the ovary is involved in the malignancy.**
GPP
• **The decision to perform OTT in oncological patients requires a multidisciplinary approach.** • **Long-term follow-up of the patients after OTT is recommended.**

15. Should IVM be used for FP?

STRONG
IVM should be regarded as an innovative FP procedure
GPP
IVM requires specific expertise and should only be performed when oocyte cryopreservation is required but ovarian stimulation not feasible.

16. Should GnRH agonists be used for ovarian protection in patients undergoing gonadotoxic treatment?

STRONG
• **There is only limited evidence regarding the protective effect of GnRH agonists on the ovarian reserve and the potential for future.** • **Hence GnRH agonists during chemotherapy should not be considered as an option for fertility preservation instead of cryopreservation** • **They can be offered as an option for ovarian function protection in pre-menopausal breast cancer patients receiving chemotherapy.** • **There may not be a role for GnRH agonists to be used routinely for ovarian function protection in malignancies other than breast cancer**

17. Should transposition of ovaries be used for ovarian protection?

GPP
• **Transposition of ovaries can be recommended when patients are undergoing pelvic radiotherapy to decrease the incidence of POI although the evidence for this is low.** • **Women with reduced ovarian reserve and women at risk of having ovarian metastases are inappropriate candidates for ovarian transposition.**

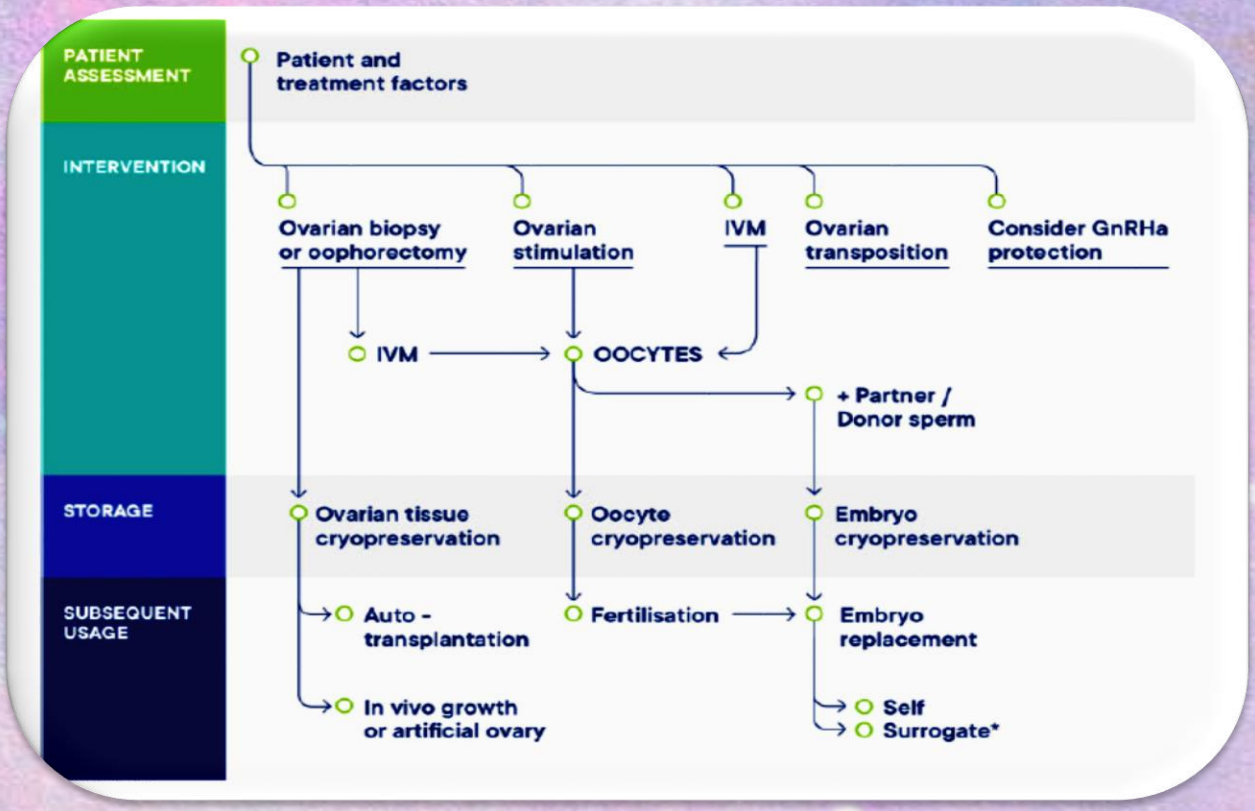
After treatment care

18. How should patients be re-assessed before use of stored material?

STRONG
The patient should be assessed for fitness for pregnancy, taking into account of late effects of her cancer treatment, the age of the patient and the interval since treatment.
GPP
The patient should have a thorough psychological pre-conception counselling

19. What is the effect of previous gonadotoxic treatments and underlying conditions on obstetric outcomes?

STRONG
• **Preconception counselling is extremely important for women who want to become pregnant after gonadotoxic treatments.** • **There should be at least an interval of 1 year after completing chemotherapy before a patient attempts pregnancy.** • **Pregnancies after radiotherapy to the pelvis, or after breast cancer, endometrial cancer and cervical cancer should be monitored closely in a high risk facility.** • **Pregnancies after pelvic cancer should be monitored by the oncologists for relapse.** • **In women with breast cancer, pregnancy is safe and after completion of the recommended treatment, and this is independent of the oestrogen receptor status of the tumour.** • **Women who opt for pregnancy, should be individually assessed for their risks which would be dependent upon the type of tumour that they were treated for.**
GPP
It is recommended to stop tamoxifen for at least 3 months before attempting pregnancy.



Schematic overview of the options for female fertility preservation. Adapted from, (Anderson et. al. Cancer Treatment and gonadal function: experimental and established strategies for fertility preservation in children and young adults. The Lancet Diabets and Endocrinology 2015; 3: 556-567

For the Indian guidelines on Fertility Preservation, please log on to The Onco Fertility Journal - https://www.tofjonline.org/

The field of fertility preservation has grown immensely in the past two decades. This has happened with a realization that there is a definite threat to fertility when patients undergo treatment for cancer and other serious diseases. The recent advances in the areas of oocyte vitrification and ovarian tissue cryopreservation has given an impetus to this field of fertility preservation.

Fertility Preservation Society of India is a young society having been established only 6 years ago and we want to encourage all gynaecologists, oncologists, rheumatologists and anybody who is dealing with patients, who may potentially lose their fertility because of various treatment methodologies, to become members of this society and increase their knowledge and share their experience. The membership form can be downloaded by clicking the following link.

Membership Form

Thank you for spending your valuable time reading this newsletter.

We would like to leave you with something to think about:

"*We can't always choose the music life plays for us, but we can choose how we dance to it.*" --- and we in the Fertility Preservation Society of India would definitely want to glide with you towards the ray of hope of parenthood.

The Onco Fertility Journal

Offical publication of the Fertility Preservation Society

Scope of the Journal

The Onco Fertility Journal covers technical and clinical studies related to health, ethical and social issues in the field of Fertility preservation, Protection for cancer patients, women with severe endometriosis, Haematological and Immunological Disease. Articles with clinical interest and implications will be given preference.

Indexing Information

The Journal is registered with the following abstracting partners: Baidu Scholar, CNKI (China National Knowledge Infrastructure), EBSCO Publishing's Electronic Databases, Ex Libris – Primo Central, Google Scholar, Hinari, Infotrieve, Netherlands ISSN center , ProQuest, TdNet, Wanfang Data

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