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Preserving Futures
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Preserving Futures

A Newsletter by Fertility Preservation Society (India)

We are excited to present this newsletter in a new format and look forward to your response to it. In the everchanging scenario of advancements in medicine we believe this e-newsletter will provide a platform to exchange knowledge, experiences, discuss latest advancements and innovative ideas.

We believe your contribution is essential for the future growth of our society and we look forward to your active participation.

The first article outlines whether fertility preservation strategies with or without ovarian stimulation impact disease free survival in patients with breast cancer. We also have a case report on such strategies applied on a patient with breast cancer. The next article is a prospective cohort study about the trends and outcomes of fertility preservation in girls with Turner's Syndrome. Lastly, we delve into the curious upcoming concept of the 'artificial ovary'.

We encourage all members of this society to stay engaged and involved in our activities and initiatives and share your expertise and experiences.

We would also like to invite you all to our upcoming national conference 'Fertiprotect 2023' in Anand, Gujarat between 30th September and 1st October 2023.

Neeta Singh
Editor, FPSI Newsletter

Jasneet Kaur
Joint Editor, FPSI Newsletter

Contents

Fertility Preservation Society (India) FPSI

Phone: +91 98103 17131
Email: fertilitypreservationsociety@gmail.com
Address: D-59, Defence Colony, New Delhi 110024
Website: www.fpsind.com

President's Message

I hope this message finds you in good health and high spirits. Today, I want to bring your attention to a topic that holds immense significance for individuals and couples facing various life challenges—fertility preservation.

We understand that preserving fertility can profoundly impact lives, offering hope and possibilities for those seeking to build families in the future. Through advances in medical science and technology, fertility preservation has become an essential option for individuals who may face circumstances that affect their reproductive capabilities.

By providing comprehensive support and information on fertility preservation, we aim to empower our community members to make informed decisions about their reproductive health. Whether it is due to medical treatments, genetic predispositions, or personal circumstances, we want everyone to have access to the resources and assistance they need to navigate this journey.

Our organization works closely with leading fertility experts, specialists, and researchers to ensure that the latest advancements in fertility preservation are available to our community. We offer a range of educational programs, workshops, and resources to shed light on various preservation methods, such as egg freezing, sperm banking, and embryo cryopreservation.

The 9th International Annual Conference of the Fertility Preservation Society of India held in Association with nine international societies namely Asian Society for Fertility Preservation (ASFP), International Society for Fertility Preservation (ISFP), Japanese Society for Fertility Preservation (JSFP), Korean Society for Fertility Preservation (KSFP), Indonesian Society for Fertility Preservation (IFSP), Philippine Society for Fertility Preservation (PSFP), Taiwan Society for Fertility Preservation (TSFP), Turkish Society for Fertility Preservation (TSFP) and Bangladesh Society for Fertility Preservation (BSFP) in Kochi between 16th - 18th December 2022 was a huge success. We had 3 workshops - Clinical Aspects of Fertility Preservation, In-Vitro Maturation of Oocytes and Ovarian Tissue Cryopreservation with the last one being a hands on session. The 10th Annual conference "Fertiprotect 2023" will be held at Anand, Gujrat between 30th September and 1 October 2023. This conference will have 2 workshops, one on Lab perspective and the other would be on clinical aspects.

We are planning for 2 CMEs on Fertility Preservation. One in Delhi on 27th July and the second in August at Mumbai.

The FPSI has published recommendations on Fertility preservation in Indian setting which is avaliable on the website. FPSI also publishes its journal " The Oncofertility Journal (TOFJ) biannualy. Please do contribute to the journal at its website http:// www.journalonweb.com/tofj.

Wishing you all a wonderful monsoon month, we welcome our showers in today's world! In this beautiful weather, put your feet up, relax in an

Contd...

President's Message Contd...

arm chair, and over a cup of "Masala Chai" and "hot pakoras" browse through "Preserving Futures" a Newsletter by FPSI with some wonderful articles.

I encourage you to explore the wealth of information available on our website and at our acedemic programs by becoming members of FPSI, if you have not yet become.Knowledge is power, and together we can help shape a brighter future for those navigating the path of fertility preservation.

I would like to take this opportunity to thank our Corporate Partners who have supported our Academic Programs. My sincere thanks to our newsletter editors Dr Neeta Singh and Dr Jasneet Kaur , for their contribution towards this Newsletter

Warm Regards

Dr Madhuri Patil
President, Fertility Preservation Society of India

Secretary's Message

Dear Members,

We are happy to present the latest edition of our newsletter, dedicated to the cause of fertility preservation in India. This newsletter serves as a platform to share important updates, advancements, and insights in the field of fertility preservation.

This newsletter reflects the collective efforts of our members who believe in the significance of fertility preservation and its impact on countless lives. By coming together, we strengthen our mission to empower individuals, enhance awareness, and pave the way for innovative fertility preservation techniques.

I would like to extend my heartfelt congratulations to our newsletter editors Dr. Neeta Singh and Dr. Jasneet Kaur, for their contribution towards this Newsletter. I also appreciate the dedication and commitment of our team for their unwavering efforts in bringing this publication to fruition

Should you have any suggestions, feedback, or ideas for future editions, please feel free to share them with us. Your input is invaluable in making this newsletter a valuable resource for our community.

We will be delighted to welcome you all to the 10 th Annual conference "Fertiprotect 2023" to be held at Anand,Gujrat between 30 th September and 1 October 2023.

Let's continue our journey with renewed enthusiasm, aiming to make fertility preservation a reality for all who seek it.

With warm regards,

Dr. Shobhana Patted
Secretary, Fertility Preservation Society of India

Disease-Free Survival Does Not Differ According To Fertility Preservation Technique For Young Women With Breast Cancer

Sonigo C, Amsellem N, Mayeur A, Laup L, Pistilli B, Delaloge S, Eustache F, Siter C, Rakrouki S, Benoit A, Peigne M.

Fertility and Sterility. 2023 Mar 1;119(3):465-73.
https://doi .org/10 .1016/j.fertnstert .2022.11.020

Compiled by: Prof. Neeta Singh, *Professor, Department of Obstetrics & Gynecology, AIIMS, New Delhi,*
Dr. Supriya Kumari, *DM Resident, AIIMS, New Delhi*

CONTEXT

- Breast cancer (BC) is the most common cancer found in women. Approximately 5% of cases with BC are diagnosed among women aged <40 years. The 5-year overall survival (OS) rate for women between the ages of 15 and 44 is 90%.
- The overall pregnancy rate in women after cancer varies between 3% and 16%.
- When specifically considering BC survivors seeking to conceive, the success rate was shown to be 40% lower than in the general population.

RESEARCH QUESTION:

Whether fertility preservation(FP) strategies using ovarian stimulation or without using it impact long-term disease-free survival of patients with breast cancer?

TYPE OF STUDY:

Retrospective bicentric cohort study done between July 2013 and July 2019.

RESULTS:

- Out of the 740 women who underwent fertility preservation, follow-up data were available for 269 women in the STIM group (82%) and 330 (80%) in the no STIM group.
- Three hundred twenty-eight (44.3%) women underwent at least 1 ovarian stimulation cycle (STIM group) and 412 (55.7%) women had a FP technique without exogenous FSH administration (IVM and/or OTC) (no STIM group).
- A total of 60 women had more than one cycle of oocyte/ embryo cryopreservation and 74 had IVM associated with OTC.
- The prevalence of triple- negative BC was 24.4% in the STIM group and 29.2% in the no STIM group.
- Letrozole was co-administered with exogenous gonadotropin(Let-COH)in 39.3% (129/328) of women in the STIM group.
- Age, BMI, and ovarian reserve parameters did not statistically differ between the Let-COH and the conventional-antagonist protocol subgroups.
- Kaplan-Meier estimates of disease-free survival (DFS) at 4 years were 87.9% (82.8%- 92.2%) and
- 83.1% (78.4%-87.3%) in the STIM and no STIM groups, respectively.
- After adjustment on prognostic parameters, no significant difference in breast cancer recurrence rate was observed between the STIM and no STIM groups (hazard ratios, 0.83 [0.64-1.08]).
- Kaplan-Meier estimate of overall survival (OS) at 4 years was 97.6% (95.3%-99.2%) and 93.6% (90.9%-95.9%) in the STIM and no STIM groups, respectively.
- Overall survival was higher in the STIM group than no STIM group (log-rank test). After adjustment on prognostic parameters, the risk of death remained significantly lower in the stim group (hazard ratio, 0.55 [0.35-0.85]).

CONCLUSION:

This cohort study shows that STIM for fertility preservation in breast cancer did not significantly impact disease-free survival but was associated with higher overall survival.

The disease-free survival and overall survival of young patients with breast cancer were not impacted by fertility preservation techniques irrespective of the timing of chemotherapy (neoadjuvant or adjuvant) and the use of ovarian stimulation. However, further investigations with a longer follow-up are needed to definitely consider COH safe, in particular when performed with a tumor in place within the breast.

ACKNOWLEDGEMENT :

This first article is a compilation from **'DISEASE-FREE SURVIVAL DOES NOT DIFFER ACCORDING TO FERTILITY PRESERVATION TECHNIQUE FOR YOUNG WOMEN WITH BREAST CANCER.'** Sonigo C, Amsellem N, Mayeur A, Laup L, Pistilli B, Delaloge S, Eustache F, Sifer C, Rakrouki S, Benoit A, Peigne M. Fertility and Sterility. 2023 Mar 1;119(3):465-73.

'Trends and outcomes of fertility preservation for girls, adolescents and young adults with turner syndrome: A Prospective Cohort Study' Rodriguez-Wallberg KA, Sergouniotis F, Nilsson HP, Lundberg FE. Frontiers in Endocrinology.

2023 Mar 3;14:1135249. doi: 10.3389/fendo.2023.1135249 PMID: 36936144

Compiled by: Prof. Neeta Singh, *Professor Department of Obstetrics & Gynecology, AIIMS, New Delhi,*
Dr. Supriya Kumari, *DM Resident, AIIMS, New Delhi*

CONTEXT

- Turner syndrome is the most common sex chromosome abnormality in women, with a prevalence of 1/2500
- Diagnosis is most common in early childhood or adolescence, but in some cases the syndrome is diagnosed later in life, often related to an infertility work-up.
- The syndrome has a wide phenotypic spectrum caused by complete or partial absence of an X chromosome.
- Approximately 20% of the girls diagnosed with Turner syndrome will spontaneously present initial puberty development, usually breast development, but only 16% of the girls will proceed to menarche.
- Girls with diagnosed Turner syndrome who show signs of ovarian function in childhood and early adolescence most often develop premature ovarian failure around the time of puberty due to rapid atresia of the follicles.
- In order to preserve fertility in patients with Turner syndrome, fertility preservation (FP) should be offered at an early age, before oocyte depletion.
- However, there are no reliable methods to predict the progress of atresia, nor can it be determined if the follicles in pre-pubertal girls are functional or not. This makes routine implementation of FP difficult in patients with Turner syndrome.

RESEARCH QUESTION:

Aim of the study was to investigate the trends and outcomes of FP indicated by a diagnosis of Turner syndrome.

TYPE OF STUDY:

Prospective cohort study of patients with Turner karyotype receiving fertility preservation counselling between 1 January 1999 and 31 December 2021.

RESULTS:

- The cohort included 100 women and girls that received counselling, where of 27% were prepubertal girls, 59% were adolescents and 14% of adult age.
- 9% of the cohort had monosomal karyotype (45X), 20% had 45X/46XX or 45X/47XXX mosaicisms and 36% had an X-chromosomal structural anomaly.
- Ovarian tissue cryopreservation was planned for 73% of all patients, 89% of the prepubertal girls, 71% of adolescents and 54% of adult women.
- Oocyte cryopreservation following gonadotropin stimulation was planned for 10% of the patients.
- Follicles were present in 25% of all biopsies analyzed. Adolescents were more likely to have follicles present (30%) than prepubertal girls (16%) or adult women (17%).
- The ten patients that underwent gonadotropin stimulation for oocyte cryopreservation underwent a total of 15 cycles and eight patients successfully preserved oocytes.
- In the seven patients with AMH measurements, the mean level was 1.1 µg/l. The mean number of mature oocytes cryopreserved in each stimulation cycle was 5.1 (range 0-19). The oocytes were cryopreserved using vitrification.
- In total, 26% of the cohort has undergone fertility treatment or expressed further interest in fertility preservation. Six women have given birth using donated oocytes and three following spontaneous conception.
- Two women have undergone re-transplantation of cryopreserved ovarian tissue, without regaining ovarian function, and none of the women that have cryopreserved oocytes has returned to use them.

CONCLUSION:

Fertility counselling for girls with Turner syndrome should ideally be offered at onset of spontaneous puberty to improve the chances of fertility preservation. Since the girls and women in this cohort are still young, the return rate and utilization of the preserved tissue and oocytes is expected to increase with time. The implementation of the current guidelines with counselling and follow up from onset of puberty has proven useful for identifying Turner girls eligible for fertility preservation.

ACKNOWLEDGEMENT:

This second article is a compilation from **'TRENDS AND OUTCOMES OF FERTILITY PRESERVATION FOR GIRLS, ADOLESCENTS AND YOUNG ADULTS WITH TURNER SYNDROME:** A PROSPECTIVE COHORT STUDY' Rodriguez-Wallberg KA, Sergouniotis F, Nilsson HP, Lundberg FE. Frontiers in Endocrinology. 2023 Mar 3;14:1135249.

An Interesting case: A challenging case of 25 years old unmarried girl of Breast Cancer with BRCA2 Mutations

***Authors: Prof. Neeta Singh**, Professor Department of Obstetrics & Gynecology, AIIMS, New Delhi, Dr. Supriya Kumari, DM Resident, AIIMS, New Delhi*

25 years old unmarried Ms. A was diagnosed with lump in left breast ?carcinoma left breast. On Trucut Biopsy Diagnosed as Invasive ductal carcinoma, grade 3 ER+, PR+ Her 2 neu-, with clinical staging T4b N1 MO. She planned for neoadjuvant chemotherapy (cyclophosphamide + Epirubicin) followed by surgery. She was

referred to ART center for fertility preservation prior to chemotherapy. She was also referred for germline mutation-BRCA 1/2, given the family history of breast carcinoma in grandmother and paternal aunt.

- Random start protocol was started with recombinant FSH- 375 IU dose and urinary HMG-75 IU. Tablet letrozole 5 mg OD was started from day 1 of stimulation to decrease the estrogen level.
- Total 12 days of stimulation with total dose of rFSH-3900 IU & uHMG-1050 IU.
- Post 36 hours of recombinant HCG trigger, 17 oocytes were retrieved.
- Letrozole continued till estrogen level reached below 50 pg/ml post pickup.
- 12 Mii oocytes were present post denudation which were cryopreserved.

After stimulation, she was diagnosed with BRCA2 +, patient received 8 cycles of neo-adjuvant therapy and underwent left modified radical mastectomy with left axillary lymph node dissection. Currently she is on follow-up and under remission.

DISCUSSION:

Reproduction is the essence of life and the right of every woman. Therefore, came the existence of onco-fertility, a study of FP in the context of cancer diagnosis, treatment, and survival. As a result, it is critical to refer these cases to fertility specialists as soon as possible so that informed decisions can be made. Several options for

FP are available to women; some of them are well established treatment modalities, whereas others are still emerging under the umbrella of experimental techniques. Oocyte and embryo cryopreservation are the currently accepted FP methods. However, these standard strategies are not applicable to prepubertal girls or

to those who are not eligible to postpone their lifesaving cancer therapy. Ovarian tissue cryopreservation (OTC) with later reimplantation or transplantation of tissue is an emerging technique for preserving the reproductive and hormone functions in this large set of patients. Another innovative method of FP is unstimulated in-vitro maturation (IVM) cycles, which avoids any ovarian stimulation, thus shortening the time to oocyte retrieval and therefore can be used in hormone-sensitive tumours like breast cancer.

Though most breast cancer cases are sporadic, 5-10% of cases are hereditary and mostly related to BRCA1 or BRCA2 gene mutations (Larsen et al. 2014). The cumulative risk estimates for developing breast cancer by age 80 are 70-90% for carriers of BRCA 1 pathogenic variants and 60-70% for BRCA2 carriers. The cumulative risk for developing ovarian cancer is a little lower; 40-50% for BRCA 1 carriers and around 20% for BRCA2 carriers (Chen and Parmigiani 2007).0n the contrary, our patient developed carcinoma breast at a much younger age of 25years, thus necessitating the need for fertility preservation. Alkylating agents like cyclophosphamide causes burnt out effect on the primordial follicles of ovary, thus decreasing the ovarian reserve (Sonigo et al. 2019). It is feared that gonadotropin stimulation for oocyte or embryo cryopreservation would expose more women to oestrogen. In women with hormone-sensitive breast cancer, an aromatase inhibitor plus gonadotropins is used to reduce oestrogen exposure during ovarian stimulation regimens.The controlled ovarian stimulation treatment with letrozole did not raise the risk of breast cancer recurrence rates and the live birth rates following embryo and oocyte cryopreservation were 41% and 32%, respectively (Fraison et al. 2022).

CONCLUSION:

Despite the well-established need for FP, the overall awareness among patients is poor. A large percentage of patients with cancer do not pursue FP because of the emotional burden of cancer diagnosis and the immediate focus on effective anticancer therapy. Unfortunately, these FP services are not widely known and well-offered by clinicians due to issues related to cost, availability of services, knowledge of FP options, and assumed poor prognosis.

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An Interesting Review on Artificial Ovary

Authors: Dr Rupali Bassi, *Clinical Coordinator, Apollo Hospital*

DEFINITION

A temporary surrogate of the natural ovary in which isolated follicles, ovarian stromal cells and a combination of growth factors can be encapsulated together inside a biomaterial-based scaffold" (Chiti, Dolmans, Donnez, & Amorim, 2017). The artificial ovary contain isolated follicles in a biomaterial and thus is able to preserve fertility and replace hormonal functions of the ovary with a significantly decreased risk of introducing malignant cells back into patients (Soares et al., 2015). It contains primordial follicles embedded in a matrix, as one of the promising future FP techniques (Fisch & Abir, 2018). The term "artificial ovary" was also used to describe a tissue-based hormone therapy that restores steroid hormones in patients with POF and menopausal women (David et al., 2017)

ISSUES WITH CRYOPRESERVATION

- The entire ovary is removed prior to gonadotoxic cancer treatment because it provides a sufficiently large pool of follicles even after follicular loss during the processing. Therefore, if patients have high risks of losing fertility, cryopreserving one entire ovary can result in more satisfactory results.
- Cryopreservation of an entire ovary is challenging because of extracellular ice formation during the process, especially intravascular ice formation can destroy the organ's
- Long-term cryopreservation does not impact the quality of human ovarian tissue and therefore provides flexibility to patients to schedule their pregnancies (Fabbri et al., 2016). The time for isolating follicles, before or after cryopreservation, has not been found to influence their viability; therefore, follicles can be isolated after thawing cryopreserved ovarian tissue

FOLLICULAR ISOLATION METHODS

Various methods have been attempted for follicular isolation ranging from mechanical means to using collagenases (known to disrupt the follicular basement membranes).Liberase, a mixture of purified enzymes, has been documented in regard to follicular isolation outcomes (Doimans et al., 2006). Follicular washing is a multistep procedure to decrease the risk of malignant cell inclusion (Paulini et al., 2016).

FOLLICULAR SELECTION

The follicles to be grafted are first selected from the ovarian cortex, where they are in various stages of development from primordial follicles to primary, secondary, preantral, and antral follicles

(Hsueh, Kawamura, Cheng, & Fauser, 2015). Grafting secondary follicles in the artificial ovary has superior outcomes in terms of a high follicular survival and growth rate than grafting primordial-primary follicles (Chiti et al. 2016). The number of follicles in a delivery scaffold should also be optimised. A delivery matrix must include an enough number of follicles to produce mature oocytes after transplantation but not too many follicles to maintain a small size of the delivery matrix.

DESIGNING SCAFFOLDS FOR ISOLATED FOLLICLE DELIVERY

The main function of the scaffold is adequate protection and support in growth of the follicles. Important features noted in the various materials used are biocompatibility, adaptability to human body temperature, degradability for follicle proliferation and migration, and vessel formation capacity to provide oxygen and nutrients to cells for successful grafting (Amorim & Shikanov, 2016; Laronda et al., 2017; Vanacker et al., 2012). Various matrices have been used eg natural polymers such as collagen, fibrin, plasma clot, alginate, and decellularised ovarian extracellular matrix and synthetic polymer ethylene glycol etc. The artificial ovary-friendly chamber system and generation of ovary-like structure using three-dimensional printing technique has also been studied(Amorim & Shikanov, 2016; Laronda et al., 2017).A scaffold composed of fibrin gel and 15% platelet lysate had a 48.31 % follicular recovery rate 14 days after transplantation (Rajabzadeh, Eimani, Mohseni Koochesfahani, Shahvardi, & Fathi, 2015), and a scaffold made of plasma clot was reported to have a 28.97% recovery rate 22 weeks after transplantation (Dolmans et al., 2008) Neovascularization is an integral part of the graft survival . The size and thickness of the scaffold are related to the vessel infiltration capacity as well as the number of follicles transplanted.

TRANSPLANTATION SITES AND SURGICAL CONSIDERATIONS

The transplantation sites are primarily divided into two main categories orthotopic (e.g., pelvic cavity, ovary, and peritoneal window) and heterotopic (e.g., forearm, neck, and rectus muscle) transplantation (J. Donnez et al., 2013). Other sites which have been reported in the past are - the kidney capsule, abdominal cavity, peritoneal pocket, subcutaneous pocket, and ovarian bursa. The placement of an artificial ovary in a human can be decided based on clinical examples of ovarian tissue transplantation.The decision of the different sites is usually based on four main factors the differences in body temperature, pressure, paracrine factors, and blood supply of the area. One of the commonly used site is inside the broad ligament, a small pocket is created within the ligament and then sutured after engraftment (Kniazeva et al., 2015). In case they placed at the a common area of placement is the peritoneum on the inner surface in the form of a circular pocket the peritoneal surface is scratched with a scalpel blade to induce angiogenesis (Chiti et al., 2016; Luyckx et al., 2014).

EVALUATION AND MONITORING

Prior to FP procedures, ovarian reserve can be assessed by serum hormone (e.g., anti-Mullerian hormone, luteinising hormone, follicle stimulating hormone, and estradiol) level, ultrasonographic evaluation of ovarian volume and follicular count, and follicular density ovarian tissue biopsy (Belaisch-Allart, Dufetre, Allart, & De Mouzon, 1991).As cryopreservation of ovarian tissue causes follicular loss, post-thaw follicular viability should be estimated through morphological evaluation and florescent staining (Carroll & Gosden, 1993; J. Donnez

et al., 2004; Martinez-Madrid et al., 2004). After transplantation of the artificial ovary in animal studies, follicular counts, histologic findings, and functionality of grafts can be examined under fluorescent or transmission electron microscope. Morphological integrity of the basement membrane, detachment between GCs and oocyte, pyknotic body, condensed chromatin, and follicular atresia can be observed in histological evaluation (Amorim, Van Langendonckt, David, Dolmans, & Donnez, 2009) The graft can be evaluated by identifying the number of primordial, primary, and secondary follicles and of corpora lutea (Myers, Britt, Wreford, Ebling, & Kerr, 2004). TUNEL assay for DNA fragmentation and apoptosis (Chiti et al., 2016; Vanacker et al., 2012), and Ki-67 staining for proliferation (Dolmans et al., 2007; Luyckx et al., 2013) helps assess follicular cell viability and growth.

The expression of P450 aromatase and follicle stimulating hormone receptor on GCs (Kossowska Tomaszczuk et al., 2010) can be used as well. Evaluation of the inflammatory immune responses markers like the C-reactive protein level and CD4/WBC count, measuring the serum hormone level, following the menstrual cycle, and imaging follicles via ultrasonographic evaluation (J. Donnez et al., 2004; J. Donnez, Martinez-Madrid et al., 2006; Meirow et al., 2005) PET/CT, near infrared spectroscopy and hyperspectral imaging may enable oxygenation monitoring of the transplanted tissue in vivo early enough to predict functionality.

Sources	Advantage	Disadvantages
Biopsied ovarian cells	• Autologous origin • Existing protocols to isolate follicles and oocytes	• May contain malignant cells
Induced pluripotent stem cells (iPSCs)	• Autologous origin	• Conversion to gametes still in research • Safety issues due to possible mutagenesis and proto-oncogenic reprogramming factors
Embryonic Stem Cells (ESCs)	• Pluripotency • Unlimited ability for self-renewal	• Conversion to gametes still in research • Eithical issues • Biological parenthood not guaranteed • Immune mismatch • Tumorigenesis • Possible contamination (immunogenic nonhuman sialic acid and virus) from animal cell layers but a feeder free culture is also possible
Oogonial stem cells (OSCs), very small embryonic-like (VSEL) stem cells	• Equivalent to primordial germ cells • Autologous origin • No need to cryopreserve gonadal tissue prior to oncotherapy because these cells survive oncotherapy	• Qustioned existences and epigenetic normalities • Optimisation and characterisation of conditions for OSC culture and development still in research

CONCLUSION

Development of a better imaging technique in vivo to observe vascularisation and degradation of an implanted material will allow researchers and clinicians to monitor and evaluate the transplanted artificial ovary effectively. If clinically applied in the future, the artificial ovary will prove to be another milestone in the field of tissue and organ engineering.

Looking forward to your active participation.

Let's pledge to help cancer survivors fulfil their dream of parenthood

"There is always hope beyond what you see-It's possible not just to survive, but to thrive and to live a healthy, wonderful life again"

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30th September and 1st October, 2023

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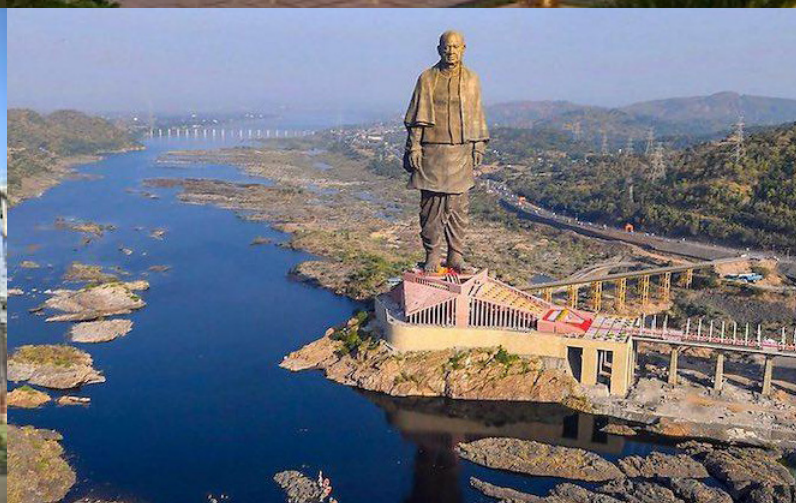
Fertiprotect 2023

10th International Annual Conference of the Fertility Preservation Society (India)

Fertility Preservation: Empowering Future Parenthood **Expanding the Horizon**

at **Madhubhan Resort & Spa,** Anand Sojitra Road, Vallabh Vidhyanagar 388120, Gujarat, India



Invitation

The last 5 decades have seen a tremendous shift in the social conscience regarding fertility.

Men and women are prioritizing their professional and social commitments, leading to steady rise in the average age of first pregnancy. Gonadotoxic therapies, endometriosis, premature ovarian failure, are few of the other conditions that fuel the ticking biological clock.

Recent advancement in fertility preservation are committed to assisting patients with a basket of options that they deserve and need to achieve pregnancy hand-in-hand, with meeting their career goals.

THE FERTILITY PRESERVATION SOCIETY OF INDIA
IS HAPPY TO ANNOUNCE

Fertiprotect 2023

The 10th International Annual Conference

EMPOWERING FUTURE PARENTHOOD

at

Madhubhan Resort & Spa, Anand Sojitra Road,
Vallabh Vidhyanagar 388120, Gujarat, India

BLOCK YOUR DATES

30th SEPTEMBER - 1st OCTOBER 2023

Join us for this academic feast as stalwarts from across the globe come together to share their esteemed experience, knowledge and practical know-how on the latest advancements in the field of fertility preservation

Membership Request Form

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Fertility Preservation Society (India)

Registered Office & Secretariat: D-59, Defence Colony, New Delhi - 110024

Name: _____

Qualification: _____ Date of birth: _____

Designation: _____

Address:
Workplace: _____

Residence: _____

Address to be used for correspondence ☐ Workplace ☐ Residence

Telephone No. : Workplace: _____ Residence _____

Mobile _____ E-mail address: _____

Amount:_____

Cash / Cheque / Demand Draft No / Online Transfer Details.

Date: Bank:

Signature: _____ Name: _____ Date: _____

*Please make Cheque / Draft in Favor of -
FERTILITY PRESERVATION SOCIETY
A / C No - 914020019747855 (Axis Bank)
IFSC Code - UTIB0001358
Branch - Safdarjung Enclave, New Delhi

Please attach two recent passport size photographs

Mailing Address

SECRETARIAT
Fertility Preservation Society (India)
D-59, Defence Colony, New Delhi – 110024 Website: www.fpsind.com
Email Address: rebecca@fpsind.com/helpdesk@fpsind.com/
fertilitypreservationsociety@gmail.com

Special Interest:

1. Fertility preservation-Social indication ☐
2. Fertility preservation-Oncology ☐
3. Fertility preservation male ☐
4. Fertility preservation-Childhood ☐
5. Fertility preservation-Adolescence ☐
6. Others ☐

Type of Membership

1. Life members	₹ 5,900/- (Inclusive of GST) ☐
2. Annual members	₹ 1,770/- (Inclusive of GST) ☐
3. Corporate Life Membership	₹ 1,77,000/- (Inclusive of GST) ☐
4. Corporate Annual Membership	₹ 35,400/- (Inclusive of GST) ☐
5. Non Resident Life Members Profession	USD 500 ☐

The Society has the following categories of membership

Founder members: Shall consist of those individuals who, because of their qualifications and achievements came together to form the society. The founder members shall also be life members upon payment of the required initiation fees and dues as provided herein.

Life Members: Any eligible member who pays the required subscription fee for life membership.

Honorary Members: Persons who have distinguished themselves as scholars, executives, administrators or otherwise attained eminence in public life, and are interested in furtherance of the object and activities of the Society including the professionals and who are invited by the Governing Council, shall be enrolled as Honorary Members for such period as may be decided by the Society

Corporate Members: This will be open to those persons who represent interested companies, Firms or other organizations interested in the activities & objects of the Society. They can become annual or life members.

Non-resident life members: Any person not residing in India, irrespective of nationality and who is otherwise to be admitted as member may apply for this membership.

Annual Membership: Any eligible member who pay the required subscription fee for annual membership

Other upcoming events