Updates on Fertility Preservation

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UF HEALTH HOPE NETWORK
(HELPING ONCOLOGY PATIENTS BECOME EDUCATED)
FLASCO 2023

Disclosures – None
Off label drug use- GnRH agonists
Learning Objectives

• To review current options for oncofertility and benign fertility preservation

• Identify clinical situations where fertility preservation is indicated and the benefits of offering this to cancer patients
Definitions

Fertility Preservation:
• Preserving reproductive ability due to fertility altering therapies for benign conditions or for social reasons

Oncofertility:
• Preserving reproductive ability before cancer treatments that could alter fertility
Improved quality of cancer care had resulted in improved outcomes and higher rates of survival.

Increased importance of addressing late effects of treatment and long term quality of life issues.
Fertility Matters

• Fertility Preservation has been cited as one of the top five unmet needs for adolescent cancer patients- some reporting the decision regarding fertility preservation almost as distressing as the cancer battle

• Studies show that AYA patients would like to be informed of the effects of cancer treatment on their fertility as well as be educated about fertility preservation options

• Patients expect these conversations to happen as early as possible and with a reproductive specialist knowledgeable in risk assessments and fertility preservation options

• Fertility consults improve quality of life and may lead to less decisional regret once treatment is complete

Health Care providers should inform patients of potential risks to fertility as a result of treatment, discuss fertility preservation options and refer interested patients to reproductive specialists prior to gonadotoxic chemotherapy.
Fertility Preservation Guidelines

“The quantitative impact of any given cancer on a young patient’s fertility may be difficult to define, but detrimental effects have consistently been demonstrated.” Ronn R and Holzer HE 2013

Despite this....

Fertility Preservation care remains underutilized
# Barriers to Fertility Preservation

| Provider issues | • Personal biases/presumptions/assumptions  
|                 | • Knowledge gaps  |
| Safety concerns | • Hormones used for ovarian hyperstimulation  
|                 | • Treatment delay  |
| Ethical concerns | • Uncertain prognosis  
|                 | • Treatment of minors  
|                 | • Experimental procedures  |
| Logistical issues | • Access to established fertility centers  
|                 | • Difficult referral pathways/limited providers  |
| Financial issues | • Expensive  
|                 | • Not covered by insurance  |
| Institutional and societal issues | • Lack of collaboration and communication  
|                         | • Lack of state/nation wide mandates for coverage of fertility preservation  |

How do we address these barriers?
Fertility Preservation Program

- Increases fertility referrals
- Increases fertility preservation procedures
- Increases the rate of documented patient-provider conversations about fertility preservation

Fertility Preservation Program

- Streamline referral processes
- Use decision aids to help educate patients
- Provide written and verbal education
- Document discussions
- Involve allied health professionals
  - Bedside/clinic nurses, social workers, Child Life Specialists, Psychologists, PA/ARNPs

Essential Members of Fertility Preservation Team
Fertility Preservation Program

- Resources for patients
- Resources/Education for clinicians
- Consult Service
- Clinical Research and Quality Improvement

Essential Elements

UF Health has established the HOPE Network- a formal oncofertility program

Program provides inpatient and outpatient consults for newly diagnosed oncology patients, rheumatology patients, patients undergoing stem cell transplant and patients desiring fertility preservation for benign/social reasons

THE HOPE NETWORK

UF Health fertility program offers novel treatments for cancer patients
HOPE NETWORK - Helping Oncology Patients Become Educated

- Alice Rhoton-Vlasak, Director REI
- Stan Williams, REI
- Lauren Staley, Inpatient nurse navigator
- Jaime Williams – REI clinical nurse liaison
- Joe Kramer –REI embryology/ lab director
- Nash Moawad, MIGS surgeon
  - Joanne Lagmay- AYA Program Director
- Patricia Durning –Clinical psychologist
- Climb for Cancer Foundation – Grant funding partners for clinical and educational programs
- Pruitt Family Foundation
Oncofertility Training

Training Program for Health Professionals in Communication about Reproductive Health

What is ECHO?
ECHO is a web-based training program that includes psychosocial, biological, clinical and skill building modules to help oncology health professionals communicate timely and relevant information regarding reproductive health to their adolescent and young adult (AYA) patients. This program and course materials are provided at no cost to participants.

Key ENRICH Participation Benefits:
- Training facilitated by a national team of experts
- Certificate of completion
- Educational materials
- $100.00 stipend
- Develop expertise in discussing cancer related reproductive health issues

Who is Eligible?
Registered nurses, licensed clinical psychologists, social workers, and physician assistants in the oncology care setting who provide care for at least five AYA patients a year.

What Will be Needed to Participate?
- Complete all modules and course requirements at your own pace during the 8 week training period
- Have access to a computer with Internet
- Complete periodic assessments/evaluations

Training Topics Include Improved Communication Skills in:
- Male and female reproductive health
- Pediatric psychosocial development
- AYA sexual health
- AYA psychosocial development
- Reproductive health communication skills
- Overcoming system barriers to reproductive health discussions and referrals

Training Activities Include:
- Lectures
- Case studies
- Discussion boards
- Video vignettes

For additional information or questions, please contact us at: (832)745-9494 • ECHO@McDiaFt.org • HRD@Oncology.org
Who can we see?
Non Oncologic Indications:

<table>
<thead>
<tr>
<th>BMT</th>
<th>Autoimmune requiring CT</th>
<th>Ovarian pathologies</th>
<th>Endocrine/genetic alterations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vasculitis</td>
<td></td>
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<tr>
<td>Sickle cell anemia</td>
<td>SLE</td>
<td>Recurrent cysts</td>
<td>Turner syndrome</td>
</tr>
<tr>
<td>Thalassemia major</td>
<td>Rheumatoid arthritis</td>
<td>Torsion</td>
<td>Galactosemia</td>
</tr>
<tr>
<td>Aplastic anemia</td>
<td>Behcet’s disease</td>
<td>Endometriosis</td>
<td>Family hx of POF</td>
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<tr>
<td>Autoimmune dx</td>
<td>Wegener’s disease</td>
<td></td>
<td>Transgender care</td>
</tr>
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<td></td>
<td>Multiple sclerosis</td>
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</tr>
</tbody>
</table>

**Social Reasons – Planned Egg Freezing**
Oncologic Indications:

<table>
<thead>
<tr>
<th>Low risk subfertility (20%)</th>
<th>Medium risk</th>
<th>High risk subfertility (&gt;80%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>AML</td>
<td>Whole body RT</td>
</tr>
<tr>
<td>Wilm’s tumor</td>
<td>Hepatoblastoma</td>
<td>Pelvic RT</td>
</tr>
<tr>
<td>Soft tissue sarcoma (I)</td>
<td>Osteosarcoma</td>
<td>Chemo for BMT</td>
</tr>
<tr>
<td>Germ cell tumor (No RT)</td>
<td>BREAST CANCER</td>
<td>Hodgkin's treated with alkylating agents</td>
</tr>
<tr>
<td>Retinoblastoma</td>
<td>NH-lymphoma</td>
<td>Sarcoma IV</td>
</tr>
<tr>
<td>Brain tumor</td>
<td>Hodgkin's ,alternating treatment</td>
<td>Metastatic Ewing Sarcoma</td>
</tr>
<tr>
<td></td>
<td>Brain tumor (RT)</td>
<td></td>
</tr>
<tr>
<td>MALES</td>
<td>Treatment</td>
<td>Cancer</td>
</tr>
<tr>
<td>-------</td>
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</tr>
</tbody>
</table>
| **High**  
>80% risk of prolonged azoosperma | TBI  
Testicular XRT  
≥ 2.5Gy men  
≥ 6Gy boys  
Protocols with Procarbazine  
Alkylators for conditioning  
Alkylators + XRT  
(TBI/pelvic/testicular)  
Cyclophosphamide >7.5G/m²  
Cranial/Brain XRT ≥ 40Gy | SCT  
Testicular cancer, testicular leukemia/lymphoma |
| **Intermediate**  
20-80% risk of prolonged azoosperma | BEP 2-4 cycles  
Cisplatin < 400 mg/m²  
Testicular XRT 1-6Gy (scatter) | Testicular cancer  
OSA (480 mg/m²)  
Testicular cancer  
Wilms, Neuroblastoma |
| **Low**  
<20% risk of prolonged azoosperma | Non-alkylating chemo  
Testicular XRT 0.2-0.7Gy | Hodgkin, NHL  
Testicular cancer |
| **No Risk**  
Negligible effect on spermatogenesis | Testicular XRT <0.2Gy  
Interferon  
Radioactive iodine | Multiple  
Multiple  
Thyroid cancer |
| **Unknown risk** | Irinotecan  
Bevacizumab (VEGF-)  
Cetuximab (EGFR-)  
Erlotinib (EGFR2-)  
Imatinib (TKI) | Sarcomas, colon CA  
Colon, NSC Lung CA  
Colon, Head/Neck  
NSC Lung CA, pancreatic  
CML, GIST |
<table>
<thead>
<tr>
<th>Females</th>
<th>Treatment</th>
<th>Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>Whole abdominal/pelvic XRT ≥60Gy women ≥10Gy post-pubertal ≥15Gy pre-pubertal TBI CMF/CEF/CAF x6 cycles ≥40y Cyclophosphamide 56/m² ≥40y Cyclophosphamide 7.5G/m² ≥20y Alkylators for conditioning Protocols with Procarbazone Alkylators + XRT [TBI/pelvic/testicular] Cranial/Brain XRT ≥ 40Gy</td>
<td>Multiple Wilms, neuroblastoma, sarcoma, Hodgkin SCT BRCA Multiple Sarcoma, neuroblastoma, NHL, ALL SCT Hodgkin SCT, sarcoma, ovarian CA, Hodgkin, neuroblastoma Brain tumor</td>
</tr>
<tr>
<td><strong>Intermediate</strong></td>
<td>CMF/CEF/CAF x6 cycles 30-39y AC ≥ 40y Whole abdomen/pelvic XRT 10-15Gy prepubertal 5-10Gy post pubertal Spinal XRT ≥35Gy</td>
<td>BRCA BRCA Wilms, neuroblastoma</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>AC 30-39y CMF/CEF/CAF x6 cycles &lt;30y Non-alkylating chemo [ABV/O/CHOP, COP] Anthraclyrines Cytarabine</td>
<td>BRCA Hodgkin, NHL, ALL</td>
</tr>
<tr>
<td></td>
<td><strong>No risk</strong></td>
<td>BRCA AML AML</td>
</tr>
<tr>
<td><strong>Unknown</strong></td>
<td>MTX/SFU VCR Radioactive Iodine</td>
<td>BRCA Multiple Thyroid CA</td>
</tr>
<tr>
<td></td>
<td>Taxanes Oxaliplatin Trastuzumab (HER2-) Lapatinib Camptothecin Bevacizumab (VEGF-) Cetuximab (EGFR-) Erlotinib (EGFR2-)</td>
<td>BRCA, sarcoma Ovarian CA BRCA Sarcomas, colon CA Colon, NSC Lung CA Colon, Head/Neck NSC Lung CA, pancreatic NSC Head/Neck</td>
</tr>
</tbody>
</table>
Options for Pre-pubertal FP

Male: **(WE HAVE IRB)**
- Testicular Tissue cryopreservation*
- Spermatogonial stem cell transplantation*
- Shielding testis from radiation

Female:
- Immature oocyte cryopreservation and IVM*
- Ovarian tissue cryopreservation*
- Ovarian transposition

*= experimental
Options for Post-pubertal FP

**Male:**
- Semen cryopreservation

**Female:**
- Oocyte cryopreservation
- Embryo cryopreservation
- Ovarian tissue cryopreservation
- GnRH analogs*
- Chemoprotective agents – such as MTOR inhibitors*
Sperm Cryopreservation and Banking (Post Pubertal Male)

- Freezing sperm obtained through masturbation
- May remain frozen indefinitely
- Sperm counts may be low or absent as a result of cancer
- Use in future with intrauterine insemination or IVF
- Cost ~900$ including storage fees - CFC funds for consult fees

Azospermia found in 9.7-17.3% of males referred for banking; 11.9% of men died, 80% within 30 mos
Testicular Tissue Cryopreservation

• Experimental, no live births to date—Before or after puberty
• Outpatient – need IRB prepubertal
• Urologic procedure
• Requires in vitro sperm maturation or germ-cell transplantation
• Requires reproductive urologist – we have one
• University of Pittsburg – Kyle Orwig


Testicular tissue cryopreservation for fertility preservation in prepubertal and adolescent boys: A 6 year experience from a Swiss multi-center network
Donor Sperm

- Usually anonymous
- Done if no options available and patient rendered sterile
- Use with female partners eggs for IUI or IVF
- Good success rates
Embryo Banking (Post-Pubertal Females)

- ASCO recommendation
- Standard IVF
- Mature eggs removed, fertilized with sperm, frozen and stored
- After puberty
- 2-3 weeks required
- What to do about partner?
Oocyte Cryopreservation (Post-pubertal Female)

- Harvest and freeze unfertilized eggs
- Thawed in future to fertilize, make embryos and do transfer
- Better in women under 38

Problems in Adolescents: Timing/Delays; Need for sedation anesthesia; Discomfort with vaginal scans
Oocyte Cryopreservation (post-pubertal female)

Advantages:

- No male partner needed
- Avoids ethical dilemmas of freezing embryos

Disadvantages:

- Oocytes more sensitive to freezing, due to high lipid content, large volume, and spindle in cell
Ovarian Tissue Cryopreservation

- Ovary removed or strips of cortex, laparoscopically, divided into small strips, frozen and stored
- Before or after puberty (IRB for birth-40)
- **Experimental in pre-pubescent females**
- 1000’s of pieces frozen
- Re-implantation may restore hormone function temporarily and progress puberty
- Not suitable if high risk of ovarian mets such as leukemia, ovarian tumors, or with very ill patient
- **Large number of immature oocytes in ovarian cortex, so may be combined with freezing immature oocytes**
Transplantation of thawed cryopreserved ovarian tissue, post chemotherapy

LSC removal of ovarian cortical strip for freezing before chemotherapy
Transplantation of cryopreserved ovarian tissue in a series of 285 women: a review of five leading European centers

### Table 1 Pregnancy outcomes and age of women undergoing frozen-thawed OTT followed by natural conception or IVF.

<table>
<thead>
<tr>
<th>Method of conception</th>
<th>Women undergoing OTT</th>
<th>Women wishing to conceive</th>
<th>Women who conceived(^a)</th>
<th>Women who gave birth</th>
<th>Miscarriages</th>
<th>No. of children(^b)</th>
<th>Age (y) at OTC of women who gave birth — mean ± SEM (range)</th>
<th>Age (y) at OTC of women who did not give birth — mean ± SEM (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women conceiving naturally</td>
<td>176</td>
<td>167 (100%)</td>
<td>67 (40%)</td>
<td>52 (30%)</td>
<td>18 (10%)</td>
<td>67</td>
<td>27.6 ± 0.8(^c) (17–36)</td>
<td>29.7 ± 0.6(^c) (10–44)</td>
</tr>
<tr>
<td>Women undergoing IVF</td>
<td>109</td>
<td>109 (100%)</td>
<td>39 (36%)</td>
<td>23 (21%)</td>
<td>20 (18%)</td>
<td>28</td>
<td>25.1 ± 1.2(^d) (9–33)</td>
<td>29.9 ± 0.6(^d) (17–39)</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>276 (100%)</td>
<td>106 (38%)</td>
<td>75 (26%)</td>
<td>38 (13%)</td>
<td>95</td>
<td>26.9 ± 0.7(^e) (9–36)</td>
<td>29.8 ± 0.4(^e) (10–44)</td>
</tr>
</tbody>
</table>

IVF = in vitro fertilization; OTC = ovarian tissue cryopreservation; OTT = ovarian tissue transplantation; SEM = standard error of the mean.

\(^a\) Some women may have become pregnant and suffered a miscarriage before a successful subsequent pregnancy, explaining why “women who gave birth” plus “miscarriages” does not add up to “women who conceived.”

\(^b\) Some women became pregnant more than once after OTT or had a twin pregnancy.

\(^c\) \(P = .046\).

\(^d\) \(P = .0002\).

\(^e\) \(P = .0005\) (Student’s \(t\)-test).
Egg cryopreservation
- More cost effective
- Less surgery
- Slightly higher PR
- Will not restore hormones if menopausal
- Only post pubertal

Pros and Cons:

**TABLE 3**

<table>
<thead>
<tr>
<th></th>
<th>OV Patients (n = 49)</th>
<th>OCT Patients, n = 44 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmed oocyte/patient</td>
<td>5.1 (3.5)</td>
<td>1 (2.3)</td>
</tr>
<tr>
<td>Oocyte survival rate, %</td>
<td>77.3</td>
<td>41 (93.2)</td>
</tr>
<tr>
<td>No. of ET (fresh-frozen)</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Surplus embryos/patient</td>
<td>2.7 (2.2)</td>
<td></td>
</tr>
<tr>
<td>Warmed embryos/patient</td>
<td>2.0 (1.7)</td>
<td></td>
</tr>
<tr>
<td>Embryo survival rate, %</td>
<td>91.7</td>
<td></td>
</tr>
<tr>
<td>No. of embryos transferred</td>
<td>1.42</td>
<td></td>
</tr>
<tr>
<td>CPR/fresh cycle (%)</td>
<td>14/51 (27.4)</td>
<td></td>
</tr>
<tr>
<td>LBR/fresh cycle (%)</td>
<td>11/51 (21.6)</td>
<td></td>
</tr>
<tr>
<td>CPR/transfer (%)</td>
<td>20/55 (36.4)</td>
<td></td>
</tr>
<tr>
<td>LBR/transfer (%)</td>
<td>16/55 (29.1)</td>
<td></td>
</tr>
<tr>
<td>No. of pregnancies</td>
<td>21 (42.9)</td>
<td></td>
</tr>
<tr>
<td>No. of live births</td>
<td>17 (34.7)</td>
<td></td>
</tr>
<tr>
<td>No. of pregnant patients</td>
<td>20 (40.8)</td>
<td></td>
</tr>
<tr>
<td>No. of patients with live births</td>
<td>16 (32.6)</td>
<td></td>
</tr>
<tr>
<td>Surgical approach</td>
<td>Laparoscopy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laparotomy</td>
<td></td>
</tr>
<tr>
<td>Surgical technique/site</td>
<td>Subcortical pouches</td>
<td>24 (54.5)</td>
</tr>
<tr>
<td></td>
<td>Cortical microsurgical sutures</td>
<td>26 (59.1)</td>
</tr>
<tr>
<td></td>
<td>Subperitoneal pouches</td>
<td>27 (61.4)</td>
</tr>
<tr>
<td>Ovarian function after graft</td>
<td>43 (97.7)</td>
<td></td>
</tr>
<tr>
<td>CPR after spontaneous pregnancy</td>
<td>7 (15.9)</td>
<td></td>
</tr>
<tr>
<td>LBR after spontaneous pregnancy</td>
<td>5 (11.4)</td>
<td></td>
</tr>
<tr>
<td>No. of patients undergoing IVF</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>CPR after IVF</td>
<td>8 (18.2)</td>
<td></td>
</tr>
<tr>
<td>LBR after IVF</td>
<td>5 (11.4)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Values of quantitative variables are shown as mean (standard deviation) and values of categorical variables are shown as n (%). CPR = clinical pregnancy rate; ET = embryo transfer; LBR = live-birth rate; OCT = ovarian cortex cryopreservation and transplantation; OV = oocyte vitrification.

GnRH Analog Treatment (Post-pubertal female)

- Administer monthly before chemotherapy initiated, at least one week before
- Can also prevent heavy menstrual bleeding with thrombocytopenia
- Experimental, with various study results

OFF LABEL USE

BLUMEFELD ET AL, FERTIL STERIL, 2008; 166-173
CLOWSE ET AL, J OF WOMEN'S HEALTH, 2009; 311-319
BECK-FRUCHTER ET AL, HUMAN REPROD UPDATE, 2008; 553-561
GnRH Analog Treatment (Post-pubertal female)

Guideline for Fertility Preservation for Patients with Cancer

3.5 Ovarian suppression: There is conflicting evidence to recommend GnRHa and other means of ovarian suppression for fertility preservation. The Panel recognizes that, when proven fertility preservation methods such as oocyte, embryo, or ovarian tissue cryopreservation are not feasible, and in the setting of young women with breast cancer, GnRHa may be offered to patients in the hope of reducing the likelihood of chemotherapy-induced ovarian insufficiency. However, GnRHa should not be used in place of proven fertility preservation methods.
<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Trial design</th>
<th>Age range (years)</th>
<th>Number of estimated patients (disease)</th>
<th>Arms and interventions</th>
<th>Outcome measures</th>
<th>Follow-up duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCT02856048</td>
<td>Co-treatment With GnRH Analogs on the Ovarian Reserve in Young Women Treated With Alkylation Agents for Cancer (PRESOV Study), Sponsor Assistance Publique-Hôpitaux de Paris</td>
<td>Phase II/III randomized open-label</td>
<td>12-25</td>
<td>160 (Ewing Sarcoma, Osteosarcoma, Lymphoma)</td>
<td>1. Triptorelin 3 mg i.m. every 28 ± 3 days + Chemotherapy with alkylating agents at an intermediate ovarian toxicity risk*&lt;br&gt;2. Chemotherapy alone</td>
<td>Variation in AMH serum levels at 24 months; AFC on ultrasound at 24 months; delay of resumption of menses; AMH, FSH, estradiol levels monitoring; pregnancy rate at 3 years; GnRH-related AEs; change in BMD at 12 and 36 months</td>
<td>3 years</td>
</tr>
<tr>
<td>NCT04536467</td>
<td>Prevention of Chemotherapy-Induced Ovarian Failure With Goserelin in Premenopausal Lymphoma Patients, Sponsor Beni-Suef University</td>
<td>Phase II randomized open-label</td>
<td>17-40</td>
<td>34 (Lymphoma)</td>
<td>1. Goserelin 3.6 mg s.c. 28 ± 3 days + standard chemotherapy&lt;br&gt;2. Standard chemotherapy alone</td>
<td>FSH and E2 levels at 6 months; overall response rate in lymphoma patients** at 6 months; GnRH-related AEs</td>
<td>6 months</td>
</tr>
<tr>
<td>NCT03475758</td>
<td>Goserelin for Ovarian Protection in Premenopausal Patients Receiving Cyclophosphamide, Sponsor Assiut University</td>
<td>Phase II randomized open-label</td>
<td>NR (Child and adult)</td>
<td>100 (Cancer patients)</td>
<td>1. Goserelin 3.6 mg s.c. every 4 weeks + cyclophosphamide containing chemotherapy&lt;br&gt;2. Cyclophosphamide containing chemotherapy alone</td>
<td>Rate of ovarian failure at 1 year (assessed by hormonal profile – FSH, LH, estradiol – every 6 months)</td>
<td>1 year</td>
</tr>
</tbody>
</table>

*Cyclophosphamide 6 g/m2, ifosfamide 50 g/m2, Procarbazine 4 g/m2, Lomustine 350 mg/m2 or Mephalan 140 mg/m2 or a combination of these drugs; ** determined by tumor assessments from radiological tests (CT scan, MRI, Positron emission tomography or physical examinations); AFC, Antral follicle count; AMH, Anti-Mullerian hormone; BMD, Bone Mass Density; FSH, Follicle-stimulating hormone; NR, not reported.
This review summarizes the pros and cons of GnRHa co-treatment for fertility preservation, suggesting 5 theoretical mechanisms for GnRHa action:

1. simulating the prepubertal hypogonadotropic milieu
2. direct effect on GnRH receptors
3. decreased ovarian perfusion
4. upregulation of an ovarian-protecting molecule such as sphingosine-1-phosphate
5. protecting a possible germinative stem cell.
OVARIAN TRANSPOSITION

(The ovarian dose is reduced by transposition to 5–10%)

A) Medial transposition
   Behind the uterus.
B) Lateral transposition
   up to the pelvic sidewall at least 3cm
   from the upper border of the radiation
   field.
   techniques * by laparotomy during surgery.
   * by laparoscopy

- higher doses of radiation are more likely associated
  with vascular damage of transposed ovaries.
Cost of FP

- Sperm banking – 800
- Egg or embryo freezing – 8000 to 10,000
- Ovarian tissue freezing – surgical package, trying to bundle with ports or bone marrow procedures – in process of solidifying this plan
- Lupron – 500 per month
Practical Considerations

- Time involved- MUST BE COMPLETED PRIOR TO INITIATING ANY TYPE OF THERAPY
- Consult within 48 hours, Prefer in clinic at Reproductive Medicine at Springhill
- Can offer inpatient consults within 24 hours (Monday-Friday)
- We offer phone consults
- Some funding available for consults (donation from Climb For Cancer)/medications
Pregnancy and Children After Treatment

- Males should wait 1-2 years after treatment and females 6 mos before trying to conceive
- Damage to sperm and eggs from treatment may occur, but appears to repair in 6 mos to 2 years
- Birth defect rates of children born to cancer survivors are similar to that of the general public ~2-3%
- No unusual cancer risk has been identified in the offspring of cancer survivors, except in genetic cancer syndromes
CANCER AND PRESERVING YOUR FERTILITY: UF Health HOPE Network

Helping Oncofertility Patients become Educated
ONCOFERTILTY AND FERTILITY PRESERVATION SYMPOSIUM 2022
Current Considerations and Options
March 19, 2022 | 8:00am – 4:30pm
Harrell Medical Education Building | Gainesville, FL

Designed to cover the current and updated guidelines in male and female cancer survivors, and the most current strategies for non-oncologic fertility preservation.

- Hear recent case studies in Oncofertility.
- Learn current strategies for fertility preservation in cancer survivors.
- Learn how to discuss options to help survivors build a family after treatment.

FertilityPreservation emo.ufl.edu
In-Person and Virtual options available!

This symposium has been endorsed by FLASCO:
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Questions...