



ADVANCING EXCELLENCE IN TRANSGENDER HEALTH

# Reproductive Options and Obstetrical Care for Transgender People

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September 23, 2018

# Objectives

- Describe effect of hormone affirming therapy on reproductive function
- Review fertility preserving and family building options
- Overview of transmen experience with pregnancy and infant feeding choices

# Disclosure

- None

# Case Vignette: Transgender Pregnancy



- 27 y.o. G1P0 transgender man with +home pregnancy test
- No testosterone x 1 year with return of spontaneous monthly menses
  - Restarted testosterone injection; last injection within 4 weeks of +HPT



# Initial Visit

- Cisgender male partner present
- Desired pregnancy
- Symptoms since LMP: amenorrhea, nausea, nipple sensitivity
- Desired scheduled Cesarean delivery



# History

- Past Medical History
  - ADD, Depression
  - Hormone disorder
  - Obesity (BMI=33)
- Past Surgical History
  - Top surgery, 2010
- Social History
  - Married
  - No tobacco, alcohol or drugs
  - College graduate



# Prenatal Labs/Imaging



- A+, neg ab, RI, HepBsAg neg, HIV neg, RPR NR, Gc/ch neg, CF screen neg, Urine cx neg
- Normal Hgb a1c, liver function tests
- Declined screening for chromosomal abnormalities
- Normal fetal survey
- Elevated GLT, normal 3hr GTT

# Pregnancy Events



- Total weight gain: 21#
  - 38 weeks: Elevated blood pressures 139/93, 142/85
- Trace proteinuria, normal pre-eclampsia labs
- Primary elective Cesarean delivery for gestation hypertension
- Female bodied baby to NICU for TTN



# Postpartum Course

- Incision healing well
- EPDS=17, encouraged transparenting support group
- Bottlefeeding
- Condoms for contraception
- Happy with parenthood
- Restarted Testosterone

# Adventures in Transgender Fertility

A Family in Transition

Two fathers and the baby girl they never expected.

How To Talk To A Trans Parent About Their Pregnancy

**Wait.. I'm a Trans Man, but I'm Pregnant???**

She Wanted You to See a Family, Not Just a Pregnant Man

**Pregnant Transgender Man Feels 'Profoundly Blessed' to Expand His Family with His Partner**

**This Transgender Man Is The First To Give Birth Before & After Transitioning**

**Transgender dad says he preferred pregnancy as a man**

The Trans Man Who Enjoyed Most of Pregnancy



# Reproductive Wish

- Survey of 50 transmen after GRS
- 22% participants already had children
  - 8 had partners conceived with donor sperm
  - 3 conceived prior to GRS
- 54% were interested in having children at time of study
- 37.5% would have considered fertility preservation if available
- Wierckx K, Van Caenegem E, Pennings G, Elaut E, Dedecker D, Van de Peer F, et al. Reproductive wish in transsexual men. Hum Reprod 2012;27:483–7

# Planning Ahead: The Reproductive Conversation

- **WPATH:** “...it is desirable for patients to make decisions concerning fertility before starting hormone therapy or undergoing surgery to remove/alter their reproductive organs...”
- **UCSF:** “It is recommended that prior to transition all transgender persons be counseled on the effects of transition on their fertility as well as regarding options for fertility preservation and reproduction”

# Hormonal Therapy

- MTF : Estrogen effect
  - Estrogen therapy decreases testosterone production
  - ↓ sperm count and motility
  - Stopping estrogen therapy *may/may not* reverse effects
  
- FTM: Testosterone
  - Testosterone therapy *usually* leads to anovulation and amenorrhea
  - Stopping Testosterone therapy *may/may not* reverse effects

# Contraception

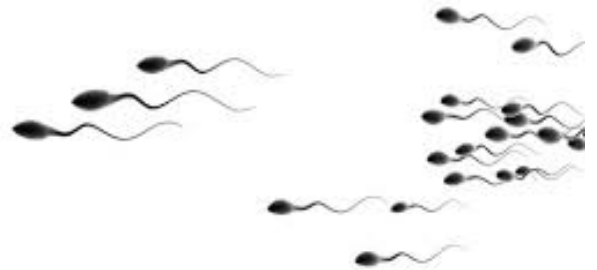
- “Because infertility is not absolute or universal in transgender people undergoing hormone therapy, all transgender people who have gonads and engage in sexual activity that could result in pregnancy should be counseled on the need for contraception. **Gender affirming hormone therapy alone is not a reliable form of contraception**, and testosterone is a teratogen that is contraindicated in pregnancy.”
  - [UCSF Center of Excellence for Transgender Health](#)

# The Basics of Reproduction

- “In order to make a baby, you need sperm, an egg, and a uterus for the embryo to grow in. Any one of those can be your own, your partner's, or a donor's. All that matters is that the sperm meets the egg, and the fertilized embryo implants and then grows inside the uterus. How and where the magic happens is ultimately a matter of logistics and planning.”
- 20 Things Transgender People Might Want To Know About Fertility. BuzzFeed. Carolyn Kylstra. June 23,2015

# MTF: Fertility Preservation and Family Building

- Prior to Estrogen therapy
  - Sperm banking (Sperm cryopreservation)
  - Testicular sperm extraction
  - Testicular tissue preservation
- Family Building
  - Partner: cisgender woman
    - sexual intercourse
  - Partner: cisgender male
    - IVF/donor egg/gestational surrogate





# MTF: Fertility Preservation and Family Building

- After Estrogen therapy + interval hormone pause
  - Sperm Banking
- Family building
  - Partner: cisgender woman
    - Intrauterine insemination (IUI)/IVF with frozen sperm
  - Partner cis-gender male:
    - IVF/donor egg/gestational surrogate

# FTM: Fertility Preservation

- Egg Freezing (Oocyte Cryopreservation)
  - Hormone-induced ovulation
  - Ultrasound guided retrieval under anesthesia
- Embryo Banking
  - Egg retrieval with immediate fertilization with chosen donor sperm
- Ovarian Tissue Cryopreservation

# FTM Fertility Preservation

- Egg quantity and quality diminishes with age
- No limit to the length of time eggs can be frozen
- Complete prior to hormone transition or during interval pause of testosterone

# FTM: Family Building

- Single:
  - Uterus but not on testosterone: IUI + donor sperm
  - No uterus/Uterus with testosterone:
    - IVF: Frozen egg+ donor sperm (+ gestational surrogate)
- Partner: Cisgender woman
  - Choose who carries pregnancy
  - Frozen Egg + donor sperm
  - Frozen Embryo: Partner Assisted IVF/Reciprocal IVF
- Partner: Cisgender man
  - Frozen egg + partner sperm (+ gestational surrogate)

# FTM: Transparent Family Building

- Partner: Transwoman
  - Frozen Egg + partner frozen sperm (+ gestational surrogate)
  - Frozen Egg + donor sperm (+ gestational surrogate)
- Partner: Transman
  - Frozen egg+ donor sperm (+gestational surrogate)

# Family Building Options

- Adoption
- Alternative insemination (donor fresh/frozen sperm)
- Assisted Reproductive Treatment (IVF)
  - Donor sperm/egg
  - Cryopreserved sperm/egg
  - Surrogate



# Fertility Preservation for Transgender Adolescents.

Chen, Diane; Simons, Lisa; Johnson, Emilie K.; Lockart, Barbara A.; Finlayson, Courtney. *Journal of Adolescent Health*, Vol. 61, No. 1,

01.07.2017, p. 120-123.

- Retrospective chart review of 105 transgender adolescents initiating gender affirming therapy between 7/2013-7/2016
  - 28 birth assigned males were started on estrogen; 77 birth assigned females started on testosterone
  - All pts/and parents (if minors) were provided with counseling regarding the potential impact of hormones on fertility and availability of fertility preservation (FP)



# Transgender Youth

- Low rates of fertility preservation utilization prior to hormone therapy
- 13/105 seen for formal FP consultation; 7 seen by fertility specialist
  - 4 completed sperm cryopreservation; 1 completed oocyte cryopreservation
  - 1 elected not to pursue sperm banking after negative experience with sperm bank misgendering and treating her disrespectfully
  - 1 one did not proceed with oocyte cryopreservation due to cost.



# Barriers to Fertility Preservation

- Cost and invasiveness to gamete cryopreservation
- Gender dysphoria due to hormone injection, transvaginal ultrasounds, egg retrieval using US guided transvaginal aspiration.
  - No transgender women cited physical discomfort related to producing a sperm sample as barrier to FP
- Urgency to move forward with medical transition

# Cost

- Donor sperm: \$500 per vial
- Sperm banking and FDA testing: \$1000
- Intrauterine insemination: \$400
- In vitro fertilization: \$15,000 per cycle
- In vitro fertilization with egg donation: \$25,000 per cycle
- Oocyte/embryo cryopreservation: \$10,000
- Gestational surrogacy: \$50,000 - \$100,000
- P. Amato MD. Fertility Options for Transgender Persons. Endocrine Society Annual Meeting, San Diego, CA March 2015



# Legal Considerations

- Contracts when using donor/surrogate
  - Financial obligations
  - Visitation agreement
- Child custody
- Varying state laws/policies



# Reproductive Health

- Obesity
- Hypertension
- Polycystic Ovarian Syndrome
- Tobacco/Drug use
- Sexually transmitted infections
- Anatomic pathology



# Preconception Counseling

- Healthy diet and exercise
- Prenatal vitamin with folic acid
- Routine screening
- Genetic screening
- Medication review
- Bleeding calendar

# Transwomen: Preconception

- Stop Estrogen
- Consider labs: semen analysis

# Transmen: Preconception

- Stop Testosterone
- Bleeding calendar
  - Regular vs irregular bleeding
    - Pelvic ultrasound, endometrial biopsy
- Consider Labs
  - Testosterone, Cycle day 3 labs, CBC, Hgb a1c , liver function tests

# Pregnancy in Transmen



- Transgender Men Who Experienced Pregnancy After Female-to-Male Gender Transitioning
- Alexis D. Light, MD, MPH, Juno Obedin-Maliver, MD, MPH, Jae M. Sevelius, PhD, and Jennifer L. Kerns, MD, MPH
- *Obstetrics & Gynecology Vol. 124, NO. 6 , Dec 2014*



# Cross Sectional Survey

- March –Dec 2013
- Online survey
- >18 y.o.
- Self identified as male BEFORE pregnancy
- Delivered within 10 years
- Testosterone therapy or gender affirming surgery not required

# Results: 41 Responders

- 61% used pre-pregnancy T
- 68% planned pregnancy
- 58% conceived within 6 months
- No difference in pregnancy, delivery or birth outcomes in those with prior T use

# Pregnancy Experience

- Feeling of isolation common
  - “Lack of resources available to pregnant transgender men”
- Varying degrees of gender dysphoria
  - “It was relieving to feel comfortable in the body I’d been born with”
  - “Heavy time, having a baby, not passing as male, all the changes and a society telling me to just be happy

# Pregnancy Experience

- Positive experience associated with proper use of gender-related language by health care team
- Negative experience due to improper pronouns and denial of services

# Chestfeeding

- Transmasculine individuals' experiences with lactation, chestfeeding, and gender identity: a qualitative study
- Trevor MacDonald, Joy Noel-Weiss, Diana West, Michelle Walks, MaryLynne Biener, Alanna Kibbe and Elizabeth Myler
- *BMC Pregnancy and Childbirth*, May 2016

# Results: 22 Responders

- 9 with prior chest surgery
  - No discussion with surgeon regarding future infant feeding choices
- 16 chose to chest feed
  - 7 had gender dysphoria
  - 11 chest fed for more than 1 year
  - 7 received donor milk
  - 1 resumed testosterone therapy

# Chestfeeding after Top Surgery

- 9 with prior chest surgery
  - 6 experienced some growth in chest tissue
  - 2 reported chest tissue grew back to original size
  - 2 experienced engorgement and mastitis post-partum

# Chestfeeding and Testosterone

- Safety of maternal testosterone therapy during breast feeding

Single case report

100 mg of implantable testosterone

No significant increase in testosterone in breast milk

No detectable increase in testosterone and no apparent deleterious effects in infant

*Glaser, et al; Int J Pharm Compd. 2009 Jul-Aug;13(4):314-7.*



# Chestfeeding Support

- Use non-gendered language
- Avoid touching without permission
- Privacy is important
- Support all decisions around feeding



# Take Home Points

- Plan Ahead
- Take Precautions
- Be financially/legally prepared
- Maximize health



# Take Home Points



- **Plan Ahead.** Discuss fertility preservation before starting gender affirming hormone therapy or surgery
- **Take Precautions.** Gender affirming hormone therapy does not provide reliable contraception
- **Be financially/legally prepared.** Assisted reproductive options are expensive, potentially complex
- **Optimize health.** Same health issues that impact cisgender fertility impact transgender fertility

# Take Home Points



- Pregnancy and chestfeeding are options for transgender men
- Variable gender dysphoria occurs during pregnancy and chestfeeding
- Gender-affirming language/care/support improves transgender patient experience

# Questions & Comments

