Transgender Male: Social and Medical Aspects of Androgen Therapy

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Disclosures

- No financial disclosures

Objectives

- Understand the indications for androgen therapy
- Understand the risks and benefits of transgender therapy
- Discuss the social implications of gender transition

Definition

- (psychological) Gender identity inconsistent with assigned (birth) sex
- DSM-5: Gender dysphoria
  - DSM4: Gender identity disorder
- Current thinking: an inborn trait, not a "disease"

Definitions

Transgender = an umbrella term "used to describe people whose gender identity or gender expression differs from that usually associated with their sex assigned at birth"

- **DSM-5: Gender dysphoria**
- **DSM-4: Gender identity disorder**

Transsexual = a subset of transgender persons who have taken steps to self-identify as and look like their preferred gender. These individuals are most likely to use or plan to use hormones or surgery to modify their body to conform with their gender identity.

Transgender

- Gender identity disorder
- Gender dysphoria
- Transsexual
- MTF (FTM) or M2F (F2M)
- Persistent cross-gender identification, usually back through early childhood

Gender identity

- Often fluctuates in very young children but is defined by puberty
- No biological, hormonal, or genetic cause found; but historical studies reveal it through the ages and in most cultures
- Sexual attraction and gender identity are separate issues

Co-morbidities

- Very high prevalence of depression, anxiety, suicide attempts, anger/hostility
- Not uncommon for an individual to try to live in birth gender including marriage etc
  - Surprisingly high prevalence in the military ~5 times the general population
- Growing social awareness has led to more individuals being able to name/label themselves, no clear true increase in prevalence

History

- **Historians point out that many cultures have gender neutral terms and suggest historical cultures recognized transgendered individuals**

www.ranker.com/list/transgender-people-in-history

Prevalence

- Estimates are 0.1-0.3% of the population
  - Estimated 700,000 individuals in the US
  - Some geographical variation with higher rates reported in Singapore
  - Data mainly from surgical reassignment procedures or requests
- Approximately 1:30,000 assigned males and 1:100,000 assigned females seek surgical reassignment
- Estimates vary from 1:1 to 4:1 for MtF:FtM

Alex

- 22 yo presents asking for “T”
- Reports feeling male since earliest childhood
- At puberty became depressed, had suicide attempts in teen years
- Parents refuse to accept
- College drop out, but has now moved out, working, and has peer support
- (Has a psychologist letter in support)

Alex

- Meds: citalopram
- Non-smoker, no other PMH
- Ht 5’2”, weight 110 lbs (BMI 20.1)
- Baseline labs all normal for 22 yo female
- Menses regular
- Exam normal, dressed androgynously,

Alex

What do you do?

- **RTC 3 months after living as male full time**
- **Start transdermal T at 2 mg/d**
- **Start transdermal T at 4 mg/d**
- **Start IM T at 100 mg IM q2 weeks**
- **Start IM T at 200 mg IM q 2 weeks**

Female to Male

- Treatment consists of administration of androgens
  - Depot testosterone 100-200 mg IM q 2 week
  - Transdermal testosterone 2-10mg/d

Effects / Risks of Testosterone

Desired effects

- Deepening of voice
- Facial/body hair
- Masculinization of appearance (musculature)
- Amenorrhea
- Clitoral enlargement
- Increased libido

Risks

- Male pattern balding
- Acne
- Thrombosis/ polycythemia
- Infertility
- Low HDL, dyslipidemia
- Central (visceral) obesity

Timing

- Varies
- Deepening of voice 2-6 months
- Amenorrhea within 2-3 months (recommend pelvic exam if menses persist)
- Facial hair 2-6 months
- Maximal effects in 2-3 years
- Most irreversible

Concerns / Issues

- Minor effects on breasts – many bind and this can affect pulmonary function/ risk of thrombosis
- Possible permanent infertility (but not guaranteed)
- Recommend mastectomy/ hysterectomy

Monitoring

- Monitoring hemoglobin/hematocrit most important
- Some recommend CMP, lipid panel every 3-6 months
- Goal: ↓estrogen ↑testosterone to normal male range (estradiol < 50 pg/ml*, testosterone 300-700 ng/dl midpoint between injections)

*I don't measure b/c it won't change my Rx

Our experience

- N=72 female to male
- Increases in weight, Hgb, Hct, Creatinine with Testosterone therapy
- Decrease in HDL with testosterone
- Higher BMI patients need higher testosterone doses to achieve plasma levels in target range

Patient population has increased from ~5 NP/year to ~60 NP/year
Prevalence was ~66:34 FtM:MtF and to now ~50:50

Endocrine Issues

- **Bone health: No apparent effect on BMD (Singh-Ospina et al, JCEM 2017)**
- **Lipids: increases in TC, LDL and TG; decreases in HDL**
- **BP: generally no effect**
- **CVD: no long term data**
- **Breast cancer: possibly decreased c/w women (Gooren et al, J Sex Med, 2013)**
- **Ovarian health: no effect on ovarian morphology (Caanen et al, Hum Reprod, 2017)**

Tips

- Cost issues: many have no coverage
- IM testosterone cheapest form
  - We teach patients to do their own shots
  - Testosterone is thick, need 3ml syringe with 22-23G needle
  - Subcutaneous T may be same as IM
- Polycythemia very common and often dose limiting
- I start at low dose testosterone and titrate after 9-12 months (only if asked; if desired results occur on low dose I don't always titrate up)

Primary care issues

- Take care of the body parts they have!
- Pelvic exams and mammography
  - Aromatization of testosterone to estrogen can theoretically lead to “unopposed estrogen” and risk for endometrial hyperplasia/ malignancy
  - To date, no evidence of increased rates of disease seen
  - Unexplained vaginal bleeding should be investigated

Persistent Menses

- Verify no missed doses
- Draw mid-point T level
  - If < mid-normal consider increasing dose and/or frequency
- Consider depo-progesterone

Special Populations

- Kids
  - Gender identity may fluctuate in young kids; no treatment recommended until puberty (Tanner 2)
- Adolescents
  - Recommend GnRH analogs to suppress puberty until 15-16 years, then initiate puberty in desired gender with hormones

Special Populations

- Aging
  - No guidelines on how to manage aging transgendered patients
  - Testosterone gradually drops with aging
  - With menopause hormone doses may decrease
- Cardiovascular disease patients - ?
- Cancer patients - ?

Social Issues

- The Internet….

Psychosocial issues

- Appearances vary widely (just like with non-trans people!)
- Visible changes – concerns re work, school, home life
- Voice deepens with therapy
- State regulatory issues re name, gender flag change

Social Implications

- Timing of transition
  - If goal is to start university, or new job as new gender, initiate T 3 months prior
- Costs
  - Insurance often doesn't cover care including hormones, labs
- Safety
  - Discuss

What is your Institutional Policy?

- Many hospitals have no official policy for inpatient rooming – often assigned private rooms
- Dorms/restrooms – ideally recognize gender identity over birth assignment

Recognizing Bias/ Providing a Supportive Environment

- Look for and use “AKA” names
  - Many EMRs allow these
- Use pronouns consistent with patient’s preference
  - If you aren’t sure – ask
  - If you mess up - apologize
- Maintain privacy

Providing a Supportive Environment

- **Ensure the intake form offers transgender as an option (not just M and F)**
- **Use general terms such as “relationship status” instead of “marital status”**
- **Ask what name they would like to use**
- ***Ask what name/pronoun you should use in communication (calls or letters) and note this on their chart***

Issues and Challenges

- Should gender flag be changed to new gender?
  - I say not; important for providers to know what is "there"
  - If a transman shows up in ER with abdominal pain providers need to consider ovarian cysts
- Can you code as "hypogonadism"?
  - No

Sexual Orientation

- How to address sexual orientation?
- Be careful in labels
  - Is a FtM who has sex with women heterosexual or homosexual?
  - Consider usual safe sex recommendations and screenings

HealthCare tips

- Flag charts with desired name/gender
- Don’t forget primary care issues related to body parts present
- Sensitivity training for staff
- Request lab values provide normal range for desired gender

Beyond hormones

- SRS: sexual reassignment surgery
  - Few surgeons available, cost issues
- Legal – name change
- Gender change on driver's license, passport, birth certificate
- Safety and support, job risk etc

Thank you