Transgender Medicine – An Evidence-Base Approach

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OUTLINE:

A biological underpinning to gender identity – the evidence that has contributed to the shift in approach among mainstream physicians and scientists

Hormonal & surgical treatment strategy – what’s actually happening in 2018
Background

Potential factors determining gender identity:

1. Environment
2. Societal construct
3. Passive response to anatomy
4. Biological
Evidence for the biological nature of gender identity

• Historical attempts to manipulate gender identity

• Twin studies

• *In utero* androgen exposure data

• Attempts to find brain anatomy associations with gender identity
Evidence for the biological nature of gender identity

- Historical attempts to manipulate gender identity
- Twin studies
- *In utero* androgen exposure data
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Fraternal twins

- Same sex Trans individuals: n = 21
- Opp. sex Trans: n = 7

Heylens G et al. *J of Sex Med* 2012; 9(3) 751-757
Fraternal twins

Same sex

Trans individuals

Not Trans

n = 21

Opp. sex

Trans

Not

n = 7

Heylens G et al. J of Sex Med 2012; 9(3)751-757
Trans individuals

Identical twins

n = 23 (9 trans)

Heylens G et al J of Sex Med 2012; 9(3)751-757

Fraternal twins

Same sex

n = 21

Opp. sex

n = 7

Not Trans

Trans
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Evidence for the biological nature of gender identity

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If this biology... what do we need to know?
Strategy:

The Boston Globe
December 11, 2011
Strategies - Pediatrics/Adolescents:

Avoid permanent characteristics

“Social transition” is reversible

Recognize that some young children presenting as transgender are not so as adults

The solution:
Use the existing GnRH agonists paradigm to delay puberty
Current Approach to Therapy

**Adolescents:** GnRH agonists at Tanner 2

Male hormones

- Testosterone
- Estradiol

Female hormones

- Testosterone
- Estradiol

Chan KJ, et al, 2018 Endocrine Practice
Current Approach to Therapy

**Adult Transmen**: androgen supplementation – can be lifelong.
Current Approach to Therapy

Adult Transwomen: blockade to some degree of androgen production or action along with some degree of estrogen supplementation – thrombosis concerns.
**Surgical Options**

**Female to male:**

-- Chest Reconstruction*
-- Hysterectomy oopherectomy
-- Genital Surgery (Phalloplasty)

**Male to female:**

-- Facial Feminization
-- Breast Augmentation
-- Genital Surgery (Vaginoplasty)*

* no age Clinician + MHP, age 18
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