Phalloplasty for Gender Dysphoria

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Epidemiology

• Prevalence Transsexuals undergoing surgery
  • 1 : 12,000 MTF
  • 1 : 30,000 FTM
  • Note: 1996 study

• Prevalence Transsexuals medical treatment
  • VA study: 0.03% of VA population (1/3333)

• 700,000 transgender individuals in US

An epidemiological and demographic study of transsexuals in The Netherlands. 1996.
Gender Dysphoria

- Family rejection: 57%
- Bullied at school: 50-54%
- Harassment at work: 50-59%
- Health care denied: 60%
- Suffered physical or sexual violence:
  - At work: 64-65%
  - At school (any level): 63-78%
- Disrespected or harassed by law enforcement officers: 57-61%
- Experienced homelessness: 69%

Rate of suicide attempts (%)

- Suicide rate transgender adults
  - 800:100,000
- Suicide rate for all
  - 13:100,000

NATIONAL TRANSGENDER DISCRIMINATION SURVEY
Patient Evaluation

• Criteria for FTM Gender Confirmation Surgery
  – Well-documented gender dysphoria
  – 1 year of hormone therapy
  – 1 year of living in male gender role
  – Good overall health
  – Two referral letters

WPATH Standards of Care V 7 2012.
Patient Evaluation

• Initial Consultation
  – Discuss surgical goals
    • Standing to void
    • Size
  – Donor site
  – Vaginectomy
  – Scrotoplasty
Patient Evaluation

• Initial Consultation
  – History:
    • Most are young, healthy
    • Underlying medical/psychiatric problems
    • Obesity: relative contraindication
    • Bleeding diathesis? Coagulopathy?
    • Trauma to arm or leg?
  – Social History:
    – Nicotine
Patient Evaluation

• Initial Consultation
  – Physical:
    • Fat distribution (thick thighs)
    • Scars/tattoos on arms or thighs
    • Allen’s test
    • Soft tissue around genitalia
      – Mons
      – Labia minora (used to lengthen urethra)
      – Labia majora (used to make scrotum)
Assessment

- Phalloplasty:
  - Donor sites:
    - Radial forearm (RF)
    - Anterolateral thigh (ALT)
    - Musculocutaneous Lattisimus Dorsi (MLD)
  - RF: suggested max BMI 35
  - ALT: suggested max BMI 25
  - MLD: poor sensation; need for staged urethral lengthening
Assessment

• RF Phalloplasty:
  – Advantages:
    • Physiologic size and girth
      – (Adult penis length erect 5.2in, circumference 4.6 in)
    • Lower complication rate
    • Concomitant glansplasty
    • Sensation
  – Disadvantages:
    • Visible donor site
    • Risk of donor site morbidity
Assessment

• ALT Phalloplasty:
  – Advantages:
    • Large size and girth
      – Longer length
      – Sensation
  – Disadvantages:
    • Large size and girth
    • Higher complication rate
    • Delayed glansplasty
Assessment

• MLD Phalloplasty:
  – Advantages:
    • Larger size and girth
    • Easily concealed donor site
  – Disadvantages:
    • Delayed urethroplasty/urethral lengthening
    • Higher complication rate
    • Poor sensation
RF Phalloplasty

- **Vaginectomy:**
  - Demucosalization, canal closure
- **Urethroplasty:** labia minora
- **Dorsal nerve dissection**
- **Scrotoplasty:** labia majora
- **Forearm donor site harvest**
  - Radial artery, venae comitantes
  - Cephalic vein
  - Antebrachial cutaneous nerve(s) (sensory)
  - Urethra: tube within tube
ALT Phalloplasty

• Leg donor site harvest
  – Descending branch lateral femoral circumflex
    • Septal/intramuscular perforators
  – 1-2 larger accompanying veins
  – Lateral femoral cutaneous nerve (sensory)
MLD Phalloplasty

- Musculocutaneous latissimus dorsi donor site harvest
  - Thoracodorsal artery
    - Branch of subscapular artery
  - Single venae comitans
  - Thoracodorsal nerve (motor)
Results

• RF Phalloplasty
  – Sensation: 99% tactile, 85% erogenous
  – Size: 4.5 - 6.5 inches length
  – Scrotum: depends on size of labia
  – Complications:
    • Urinary fistula: <10%
    • Urethral stricture: 16%
    • Wound breakdown 10-30%
      – Most are small and heal spontaneously
    • Scrotal wound/hematoma 3-5%
    • Partial phallus loss: 1-2%
    • Donor site complication: 10%
Results

• ALT Phalloplasty
  – Sensation: 99% tactile, 85% erogenous
  – Size: 5 – 8 inches length
  – Scrotum: depends on size of labia
  – Complications:
    • Urinary fistula: 20%
    • Urethral stricture: 20%
    • Wound breakdown 20-30%
      – Most are small and heal spontaneously
    • Scrotal wound/hematoma 3-5%
    • Partial phallus loss: 2-3%
    • Donor site complication: 10%
Results

• MLD Phalloplasty
  – Sensation: Poor (motor nerve)
  – Size: 5 – 7 inches length
  – Scrotum: depends on size of labia
  – Complications:
    • Staged urethral reconstruction 100%
      – 1st stage Urethroplasty done 6 months later
    • Wound breakdown 20-30%
    • Scrotal wound/hematoma 3-5%
    • Partial phallus loss: 2-3%
    • Donor site complication: 5%
Second Stage Surgery

- Penile Implant
  - Inflatable
  - Semi-rigid
- Testicular implants
  - Silicone
- Glansplasty (ALT, MLD)
## Phalloplasty Summary Table

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<th>RF</th>
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<th>MLD</th>
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<td>Penetration</td>
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Outcomes

Gender Confirmation Surgery in Transmen: Sexual health survey, overall satisfaction
- Improved sexual arousal
- Maintained but different orgasms
- High satisfaction rate despite high complication rate

Thank You

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