Metoidioplasty

A summary for primary care providers

This summary provides information to facilitate discussion of transition-related surgery between primary care providers and patients. It is not exhaustive and does not replace the informed consent process between surgeon and patient.

DESCRIPTION

A penis is created with the enlarged clitoral tissue. Ligaments around the clitoris are cut, giving the clitoris a longer shaft, which creates a penis.
The urethra is extended to the tip of the penis.

INTENDED RESULTS/BENEFITS

- **Reduces gender dysphoria by aligning anatomy with gender identity**
- **Creation of a penis, +/- scrotum and testicular implants**
- **To allow standing urination**
- **Greater chance of maintaining erogenous sensation in the penis compared to phalloplasty**
- **Less scarring than phalloplasty (e.g. no forearm scar)**

SIDE EFFECTS

- **If vaginectomy and scrotoplasty are desired, hysterectomy + BSO are required-resulting in infertility**
- **Penis is not usually large enough for insertive penetrative sex**
- **Inability to have receptive vaginal sex if vaginectomy is performed**

ALTERNATIVE TREATMENT OPTIONS

- Clitoral release, which lengthens the clitoris but without urethral extension
- Devices that aid voiding while standing
- Phalloplasty

SURGICAL TECHNIQUES AND OPTIONS

- An enlarged clitoris results from testosterone therapy
- Ligaments around the clitoris are cut, releasing it from the pubis, giving the shaft more length, thus creating a penis
- Sometimes labial tissue is used to add girth to the penis
- The urethra is lengthened (urethroplasty using mucous-producing tissue from the vagina or the inner cheek) to allow voiding through tip of penis
- Some surgeons may offer vaginectomy/scrotoplasty/testicular implants in labia majora depending on patient preference and hysterectomy + BSO status
  Vaginectomy: removal of the vagina (colpectomy) or closure of vagina (colpocleisis)
  Scrotoplasty: creation of a scrotum and insertion of testicular implants
- Surgical techniques vary by surgeon

POTENTIAL RISKS/COMPLICATIONS COMMON TO MOST SURGERIES

Risks are increased with smoking, immunosuppressant drugs, clotting disorders, conditions that impair healing, BMI <18.5 or >30

- Bleeding
- DVT, PE (blood clots in legs, lungs)
- Injury to surrounding anatomical structures (organs, nerves, blood vessels)
- Hematoma (collection of blood)/seroma (collection of fluid)
- Infection/abscess (collection of pus)
- Wound dehiscence (wound opening), delayed healing
- Nerve damage, loss of sensation, hypersensitivity, neuropathic (nerve) pain
- Chronic pain
- Scarring (can be prominent especially if history of keloid)
- Dissatisfaction with appearance/function
- Need for revision(s)
- Post-operative regret

General Anesthetic Risks:

- Respiratory failure
- Cardiac failure/arrest
- Death
- Damaged teeth
- Aspiration pneumonia
- Nausea/vomiting

SURGICAL RISKS AND COMPLICATIONS OF METOIDIOPLASTY

- Even with urethroplasty, some clients will not be able to void standing, due to a change in urine stream (spray, dribble) or lack of penis length.
- **Urinary complications:** fistula, stricture, stenosis, urinary tract infections
- **Urethral fistulas:** uro-cutaneous (abnormal leak between urethra and skin)
- **Urethral stenosis:** narrowing of the urethra causing difficulty urinating
- **Urethral strictures:** completely blocked urethra, inability to urinate, may require a catheter to be inserted (until surgically corrected)
- **Hair growth in urethra:** may cause UTI, stenosis, stricture, intra-urethral stones
- Urethral complications may require surgical revision
- Changes in sensation of penis: decreased sensation, tenderness or hypersensitivity
- **Testicular implant complications**: infection, extrusion, poor/uncomfortable positioning
- **Dissatisfaction with appearance and or function of genitals** (size, shape, function of penis, scrotum)

PRE- AND POST-OPERATIVE CARE

PRE-SURGICAL CARE

PRE-SURGICAL CONSIDERATIONS

- Consider referral to the Sherbourne Health Centre ARC (Acute Respite Care) if socially isolated, under-housed or homeless
- Testosterone administration is needed to enlarge clitoris (most surgeons require at least 1-2 yrs)
- If considering scrotoplasty, requires an earlier total hysterectomy + BSO, to allow for vaginectomy
- Smoking cessation is strongly recommended both pre-op and post-op to optimize wound healing
- Follow surgeon's advice on time periods to avoid smoking, alcohol and other substances
- Off work for 4 or more weeks (depending on the type of work)
- Limit physical activity for 6 weeks
- Full recovery may take up to 3 months
- Consider the need for a support person in post-op period to assist with ADLs, IADLs (cleaning, laundry, groceries)

Each surgical centre has a routine pre-operative process, patients should ask their surgeon what to expect

Hospitals tend to have standard pre-operative processes which may include:

- Pre-admission visit to review health history and provide teaching (pre/post-op care)
- Anesthesia and/or medicine consult may be required, depending on health history
- Anesthesia will discuss:
  - which medications to stop and when
  - anesthetic approach and risks
  - pain control measures

POST-SURGICAL CARE

IMMEDIATE POST-OPERATIVE CARE

- Urinary catheter is likely kept in place post-operatively for several weeks
- Suprapubic catheter may be required

INTERMEDIATE POST-OPERATIVE CARE

Follow surgeon's recommendations on restriction of activities. Some general guidelines include:

- Off work for 4 weeks (or longer depending on the type of work)
- Icing periodically for 10 min can be helpful for swelling/ pain control
- Avoid driving for 2 weeks (or until able to drive safely)
- Light activity (walking) is encouraged
- Avoid vigorous physical activity/heavy lifting for 6 weeks
- Full recovery may take up to 3 months
- Continue to avoid smoking and alcohol according to the surgeon's instructions to optimize healing

LONG-TERM MEDICAL CARE

- Urinary revisions may be required to repair strictures or fistulas
- Balloon dilation may be effective for urethral stricture
- In Ontario, funding for revisions can be applied for through the Ministry of Health via completion of the Prior Approval for Funding of Sex Reassignment Surgery form

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DISCLAIMER

The information provided here is generalized and is not medical advice. It is recommended that all patients have a pre-operative consultation with their surgeon to receive individualized information including the specific surgeon's technique, complication rates and recommendations. This is a dynamic document that is subject to change, as the knowledge of transition-related surgeries changes.

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