Toward Optimized Practice

METOIDIOPLASTY

Summary for Primary Care Providers | April 2019

OBJECTIVE

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.

Alberta Health has developed criteria for eligibility for funding for metoidioplasty, and the application process, found at: https://www.albertahealthservices.ca/info/Page15676.aspx.

DESCRIPTION

Metoidioplasty is a masculinizing gender affirming surgery whereby a neophallus is created with the enlarged clitoral tissue. Ligaments around the clitoris are cut, allowing the clitoris to develop a longer shaft similar to a penis. The urethra is extended to the tip of the penis /neo -phallus.

INTENDED RESULTS AND BENEFITS

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

POTENTIAL DRAWBACKS

- If vaginectomy and scrotoplasty are desired, hysterectomy + BSO are also required, resulting in infertility.
- Neophallus is not usually large enough for insertive penetrative sex.
- Inability to have receptive vaginal sex if vaginectomy is performed.
- Risk of complications requiring additional surgical revision. While the risk of complications arising from metoidioplasty is substantial, it is much less risky than phalloplasty.

Alberta Government

Surgical Techniques and Options

- Chronic testosterone therapy results in an enlarged clitoris. This greatly facilitates metoidioplasty.
- Ligaments around the clitoris are cut, releasing it from the pubis, giving the shaft more length, thus creating a penis /neo -phallus. Sometimes labial tissue is used to add girth to the penis /neo -phallus. The urethra is lengthened (urethroplasty using mucous-producing tissue from the vagina or the inner cheek) to allow voiding through tip of penis /neo -phallus. 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.

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 insufficient neophallus 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/neo -phallus: 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 scrotum or penis/neo -phallus)

Major surgery with general anesthetic itself holds substantial risk of complications, such as deep vein thrombosis, infection, nerve damage, chronic pain, need for surgical revision, and others.

PERIOPERATIVE CARE RECOMMENDATIONS FOR THE PRIMARY CARE PROVIDER

PRE-SURGICAL CARE PLANNING

- Pre-op connection with urogenital specialist for post-op management plan (elective/expedited if complications).
- Testosterone administration is needed to enlarge clitoris (most surgeons require at least 1-2 years).
- 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.
- Anticipate being off work for four or more weeks (depending on the type of work).
- Limit physical activity for six weeks.
- Full recovery may take up to three 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.

Pre-operative processes often include:

- Confirmation of FP/GP involvement and completed pre-op examination/form
- 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-OPERATIVE CARE: UROLOGIC

- A urinary catheter is likely kept in place post-operatively for several weeks. A suprapubic catheter may be required particularly if there is urinary retention and if there is difficulty re-inserting a urinary catheter.
- Follow surgeon's instructions for positioning of the neophallus post-operatively.

- Follow surgeon's instructions for suture removal/dressings.
- Follow surgeon's instructions for urinary catheter or suprapubic catheter care and removal.
- Smoking cessation and limiting caffeine are important to promote blood flow and support healing.
- If wound/catheter concerns, be prepared to discuss management decisions directly with surgeon or local urologist with knowledge and experience in this area of post op care.
- Visits to urgent care setting/ER can be problematic due to lack of experience and knowledge of metoidioplasty complications.
- Urinary revisions may be required to repair strictures or fistulas.
- Balloon dilation may be effective for urethral stricture.

Post-Operative Care: The First Few Weeks

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

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

Long Term Post-Operative Care and Preventative Care

- In Alberta, funding for revisions are generally submitted by the psychiatrist of record; a list of Alberta psychiatrists with particular interest in transgender health is found at: https://www.albertahealthservices.ca/info/Page15676.aspx

Additional Reading and Resources

GRS Montreal has published a handout for post-operative care for metoidioplasty: https://www.grsmontreal.com/en/surgeries/female-to-male/12-metaiodoplasty.html.

Companion Transgender Health Care Tools

The following practice tools also developed for the Alberta environment are available on the TOP website:

- Transgender Health in Primary Care: Initial Assessment

- Feminizing Chest Surgery
- Masculinizing Chest Surgery
- Phalloplasty
- Vaginoplasty

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