VAGINOPLASTY

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 vaginoplasty, and the application process, found at: https://www.albertahealthservices.ca/info/Page15676.aspx.

DESCRIPTION

Vaginoplasty is a surgical technique to create a vagina and vulva (including mons, labia, clitoris and urethral opening) and remove the penis, scrotal sac and testes.

INTENDED RESULTS AND BENEFITS

- Reduces gender dysphoria by aligning anatomy with gender identity
- Eliminates main source of endogenous testosterone production and its effects
- Patients can stop their androgen-blockers
- Some patients may be able to decrease their estrogen doses
- Sensate tissues which, in many cases, maintain the ability to have an orgasm
- Ability to have receptive sex (if cavity formation is chosen)
- Ability to void sitting down
- No longer have to 'tuck' genitals

POTENTIAL DRAWBACKS

- Irreversible
- Permanent infertility (no longer producing sperm)**
- Almost no testosterone production – puts patient at risk for osteoporosis if an exogenous sex hormone is not used**
- Side effects of low testosterone may include decreased libido, decreased energy.**

**Consequences of orchiectomy*.

There are potential alternatives to vaginoplasty, including "tucking" genitals, orchiectomy +/- scrotectomy, or vaginoplasty without cavity formation.

Alberta Government

Surgical Techniques and Options*

Vaginoplasty includes:

- Removal of testes (orchiectomy)
- Removal of penis (penectomy)
- Creation of a vaginal cavity/neovagina (vaginoplasty)
- Creation of a clitoris (clitoroplasty)
- Creation of labia (labiaplasty)

**Surgical techniques vary by surgeon.*

Surgical Risks and Complications of Vaginoplasty

Vaginal Complications:

- Neovaginal stricture of stenosis (lifelong dilation or equivalent is required to prevent this)
- Prolapse of the neovagina (vaginal vault falls out of its original position)
- Partial or complete flap necrosis (loss of clitoris) *increased risk with smoking
- Hair growth inside the neovagina (causing irritation, inflammation, infection)
- Persistent granulation tissue (recurrent pain and bleeding)
- Granuloma inside vagina (overgrowth of healing tissue, causing a raised bump)
- Neuroma inside vagina (raw nerve endings that are hypersensitive)

Urological Complications

- 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
- Urinary incontinence
- Urethro-(neo)vaginal fistula
- Urinary infections

Wound Dehiscence/Delayed Healing

- The vaginal fourchette, an area of increased tension where the labia minora meet the perineum, and some areas of labia may take longer to heal.

Rectal Complications

- Rectal injury
- Recto-(neo)vaginal fistula (unwanted connection between rectum and vagina, allowing gas/discharge or feces to exit through the vagina, requires surgical revision).

Other Risks

- Loss of sensation, loss of sexual function, inability to orgasm
- Dissatisfaction with size/shape of vagina, clitoris or labia
- Hypertrophic scarring
- Compartment syndrome and nerve injury of the legs associated with positioning during surgery

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

- Pre-op connection with urogenital specialist for post-op management plan (elective / expedited if complications)
- Fertility counselling +/- sperm banking
- Post-orchiectomy continuous exogenous sex hormone is recommended to address the increased risk of osteoporosis, as long as deemed medically safe and beneficial.
- 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.
- The Montreal GRS clinic prefers that prior electrolysis not be performed on scrotal skin whereas other authorities do not share this view: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4893513/ .

- Due to the frequency of dilation, many patients require up to three months off of work. Some may require more time, depending on patient factors in healing and the type of work.
- Need to reduce activities and appreciate the importance of supportive person/community/ team to assist with daily activities such as self-care, grooming, meal preparation, laundry, etc., in the post-op period.
- Need to strictly adhere to post-operative schedule of vaginal dilations, sitz baths and douching, which is a significant time commitment for the first three months.
- Need for regular follow up with care providers during post-operative period
- The vulva will approach its final appearance at approximately 6-12 months.

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

IMMEDIATE POST-OPERATIVE CARE

IMMEDIATE POST-OP VAGINOPLASTY CARE:

- Will have a vaginal stent (to keep the vaginal cavity open) and urinary catheter for the first several days.
- Subsequently, the stent is removed and dilations, douching and sitz baths begin.
- Follow surgeon's instructions on frequency and duration of dilations, douching, sitz baths, and dressing areas an example, GRS Montreal recommends dilating four times daily (25 min each time), sitz baths twice daily, and douching after ever dilation for the rest of the patient's life.
- Full dilation schedule can be found on the GRS Montreal website.

Activity: short walks of 10 minutes or less to avoid pressure on the stent and stiches.

Medication: a course of oral antibiotics is often prescribed to minimize chance of infection.

Immediate Post-Op Side-Effects

- Bleeding, itching, swelling, bruising: typically during the first 48 hours
- Pain: controlled with medications, rest and ice
- Bruising can occur from the abdomen to lower thigh and can take approximately 3-4 weeks to resolve.
- Labial swelling, can take up to six weeks to resolve.
- Spraying with urination, usually improves over time (typically within 3-6 months).
- Brown/yellow vaginal discharge for the first 6-8 weeks
- Scarring: typically fades within the first year.

Intermediate Post-Operative Care: The First Few Weeks

Monitor for the uncommon need for vaginal management of granulation tissue including steroid douches or topical steroid treatments, or application of solutions/silver nitrate.

- If wound/catheter concerns, be prepared to discuss management decisions directly with surgeon or local gynaecologists with knowledge and experience in this area of post op care.
- There should be no internal exam using a speculum in the first year.
- Visits to urgent care setting/ER can be problematic due to lack of experience and knowledge of GRS surgeries and complications.
- Follow surgeon's recommendations on restriction of activities. Some general guidelines include:
    - Off work for a minimum of four weeks (and often much 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.
    - Urinary revisions may be required to repair strictures or fistulas.
    - Balloon dilation may be effective for urethral stricture.

Long Term Post-Operative Care and Preventative Care

- Patients and their surgeon can determine whether a surgical revision is necessary. The types of revisions that may be sought are described on the GRS Montreal website.
- Dilations are a critical part of postoperative care. They will need to continue daily for at least a year and then onward, weekly on an ongoing basis unless having regular receptive sex.
- Numbness: sensation tends to gradually return, usually within the first year as the nerve endings heal.
- Sex: follow surgeon's instructions regarding when sexual activity can be initiated, and whether or not to douche following receptive vaginal sex. The neovagina does not self-lubricate and will require lube for penetrative sex.
- Prostate exams can still be done (if indicated) and can be conducted vaginally.
- Discharge from the neovagina is expected. An increase in discharge or malodor can usually be managed by resuming douching for a period of time. Laboratory-confirmed cases of yeast infection or bacterial vaginosis can be treated routinely. (samples sent to lab must be labelled as originating from Neovagina for proper processing.
- Using an anoscope rather than a speculum may facilitate visual examination of the neovaginal vault1.
- Neovaginal STIs: see UCSF Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender-Nonconforming People for more information.
- Given that orchiectomy would be performed before or in conjunction with this procedure, please also refer to all long term care described on the orchiectomy sheet
- In Alberta, funding for surgical revisions are generally (but not always) 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 with links to the appropriate forms.

Additional Reading and Resources

GRS Montreal has published a patient handout which describes perioperative care following phalloplasty. It is found at: https://www.albertahealthservices.ca/info/Page15676.aspx

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
- Metoidioplasty
- Phalloplasty

ACKNOWLEDGMENTS

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