THE JOURNAL OF
SEXUAL MEDICINE

ORIGINAL RESEARCH

SURGERY

Does Depth Matter? Factors Affecting Choice of Vulvoplasty Over Vaginoplasty as Gender-Affirming Genital Surgery for Transgender Women

David Jiang, MD,[1] Jonathan Witten, MD,[1] Jens Berli, MD,[2] and Daniel Dugi III, MD, FACS[1]

ABSTRACT

Background: Gender-affirming vaginoplasty aims to create the external female genitalia (vulva) as well as the internal vaginal canal; however, not all patients desire nor can safely undergo vaginal canal creation.

Aim: Our objective is to describe the factors influencing patient choice or surgeon recommendation of vulvoplasty and to assess the patient's satisfaction with this choice.

Methods: Gender-affirming genital surgery consults were reviewed from March 2015 until December 2017, and patients scheduled for or who had completed vulvoplasty were interviewed by telephone.

Outcomes: We report demographic data and the reasons for choosing vulvoplasty as gender-affirming surgery for patients who either completed or were scheduled for surgery, in addition to patient reports of satisfaction with choice of surgery, satisfaction with the surgery itself, and sexual activity after surgery.

Results: In total, 486 patients were seen in consultation for trans-feminine gender-affirming genital surgery: 396 requested vaginoplasty and 39 patients requested vulvoplasty. 30 Patients either completed or are scheduled for vulvoplasty. Vulvoplasty patients were older and had higher body mass index than those seeking vaginoplasty. The majority (63%) of the patients seeking vulvoplasty chose this surgery despite no contra-indications to vaginoplasty. The remaining patients had risk factors leading the surgeon to recommend vulvoplasty. Of those who completed surgery, 93% were satisfied with the surgery and their decision for vulvoplasty.

Clinical Translation: Vulvoplasty creates the external appearance of female genitalia without creation of a neovaginal canal; it is associated with high satisfaction and low decision regret.

Conclusions: This is the first study of factors impacting a patient's choice of or a surgeon's recommendation for vulvoplasty over vaginoplasty as gender-affirming genital surgery; it also is the first reported series of patients undergoing vulvoplasty only. Limitations of this study include its retrospective nature, non-validated questions, short-term follow-up, and selection bias in how we offer vulvoplasty. Vulvoplasty is a form of gender-affirming feminizing surgery that does not involve creation of a neovagina, and it is associated with high satisfaction and low decision regret. **Jiang D, Witten J, Berli J, et al. Does Depth Matter? Factors Affecting Choice of Vulvoplasty Over Vaginoplasty as Gender-Affirming Genital Surgery for Transgender Women. J Sex Med 2018;15:902–906.**

Key Words: Transgender; Vulvoplasty; Vaginoplasty; Non-Binary; Gender Dysphoria; Gender-Affirming Surgery

INTRODUCTION

"Vaginoplasty" is a commonly used term for feminizing gender-affirming surgery for individuals with gender dysphoria. The goal is to create both the external female genitalia (vulva) as well as an internal vaginal canal. The creation of the vaginal canal constitutes the highest-risk portion of this surgery, with risk of injury to the rectum and possible formation of a recto-vaginal fistula.[1] In addition, maintaining the patency and depth of the neovagina requires significant compliance by the patient and

Received December 24, 2017. Accepted March 14, 2018.

[1]Transgender Health Program, Department of Urology, Oregon Health and Science University, Portland, OR, USA;

[2]Transgender Health Program, Division of Plastic Surgery, Oregon Health and Science University, Portland, OR, USA

https://doi.org/10.1016/j.jsxm.2018.03.085

dedication to self-care and maintenance in the form of daily self-dilation.

However, not all patients desire creation of the vaginal canal. Although quantitative research is sparse, it appears that a proportion of people do not use the neovagina for sexual activity.[2] Other patients do not wish to perform the frequent self-dilation needed to prevent neovaginal stenosis. Further, some patients have medical, mental health, or social considerations that make creation of the neovagina especially high risk. For instance, patients undergoing vaginoplasty who have had prior treatment for prostate cancer, whether surgery or radiation,[3] have scarring in the retro-prostatic space and thus a higher risk of injury to the rectum with subsequent fistula formation. They may also have higher risk of urinary incontinence. Other conditions or illnesses that may preclude patient self-care, such as a social instability or schizophrenia,[4] while well controlled, may also represent situations with high risk for poor patient outcomes.

"Gender-affirming vulvoplasty" is the authors' preferred term to describe gender-affirming genital surgery that creates the vulva (including clitoris, labia majora and labia minora, and female urethral position) without creation of a vaginal canal. We prefer "vulvoplasty" over other terms in common use, such as "zero-depth" or "cosmetic" vaginoplasty, as it more accurately reflects the anatomic intent of a surgery for which the goal is to form a vulva without creating a vagina. Anecdotally, this surgery is only performed by a few surgeons around the world who also offer vaginoplasty.

At our institution, we offer vulvoplasty to patients who are at high risk for complications due to social or medical co-morbidities. For those patients, vulvoplasty is a lower-risk alternative. Additionally, despite having no contra-indication to vaginal canal reconstruction, some patients present requesting vulvoplasty.

For reconstructive surgeons, the goals of surgery are usually to re-create normal anatomy or function. Vulvoplasty without the creation of a vagina is outside of this strict definition, and some consider this a "non-binary" surgery. There is a growing understanding of gender identity as not being strictly binary, either purely male or female, with gender identity being between those 2 poles or even without gender, a non-binary gender identity.[5] Vulvoplasty may be seen by some as a non-binary surgical option as it does not seek to construct the complete natal female genital anatomy. Indeed, the authors have heard members of the transgender community disparage vulvoplasty as "not fully female."

The objective of this study is to review our experience performing gender-affirming vulvoplasty and to determine which factors influence patient choice or surgeon recommendation of vulvoplasty, as well as to assess the patient's satisfaction or regret with this choice. Furthermore, we sought to determine whether patients choosing vulvoplasty see this as a non-binary surgical option. Very little information is available about this surgery in the public space, and there is little published medical literature about this variation of gender-affirming genital surgery.

METHODS

After obtaining institutional review board approval, patients seen in consultation between March 2015 and December 2017 for gender-affirming genital surgery at our institution by a single surgeon were reviewed. Our institution follows the World Professional Association for Transgender Health Standards of Care guidelines[6] for patients seeking gender-affirming surgery. Patients having completed vulvoplasty, as well as patients seen in consultation or scheduled for surgery, but not having completed surgery yet, were asked about their preference for vulvoplasty instead of vaginoplasty. Medical records were reviewed for demographic information; additionally, body mass index (BMI) and age were compared between patients undergoing vaginoplasty and vulvoplasty using 2-sample t test. Vulvoplasty patients were also contacted via telephone by a different individual than the surgeon to participate in a telephone interview (Appendix A).

RESULTS

A total of 486 patients were evaluated for feminizing gender-affirming genital surgery during the study period: 396 requested vaginoplasty; 51 requested orchiectomy only; and 39 requested vulvoplasty. Vaginoplasty and vulvoplasty were completed in 64 and 16 patients, respectively. An additional 142 patients were scheduled for vaginoplasty and 14 for vulvoplasty, for a total of 30 patients scheduled for or completing vulvoplasty. When comparing vaginoplasty vs vulvoplasty for patients either completing or scheduled for surgery, the average age was older in vulvoplasty at 57.9 (range 28−74) years compared to 39.2 (range 17−69) years in vaginoplasty. BMI of vulvoplasty patients was also higher: 30.4 (range 19.7−46.7) compared to 27.4 (range 17.3−47.5) in vaginoplasty patients. 2-Sample t test showed significant difference in the age and BMI between the 2 groups ($<.001$ and .03, respectively). Age, BMI, relationship status, and affirmed gender identity demographics of patients who either completed or were scheduled for vulvoplasty are shown in Table 1.

Of those patients scheduled for or with completed vulvoplasty (n = 30), 11 (37%) were recommended to have vulvoplasty by the surgeon due to health or social concerns (Table 2). Previous radical prostatectomy or pelvic radiation was the most common reason for recommending vulvoplasty. 1 Patient with schizoaffective disorder was concerned that she might not reliably be able to perform routine dilation post-operatively. Nineteen (63%) patients chose to have vulvoplasty despite no medical concerns. Of the 30 patients scheduled for or with completed vulvoplasty, 25 were reached via telephone for the study. The reasons for choosing vulvoplasty are shown in Table 3 (patients