

# Results of Sex Reassignment Surgery in Trans Female Patients at the Hospital de Clínicas, 2017-2022

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**Abstract:** ***Background:** The term "transgender" describes individuals whose gender identity does not align with the sex assigned at birth, which sometimes causes gender dysphoria. In Uruguay, the Comprehensive Law for Trans People (Law No.19, 684) guarantees rights such as legal name and sex updates, and access to medical treatments, including sex reassignment surgery, which has been shown to improve well-being, physical appearance, and sexual function. **Objectives:** To describe the outcomes of sex reassignment surgery in transgender female patients who underwent surgery at Hospital de Clínicas, Montevideo, from 2017 to 2022. **Methods:** An observational descriptive study was conducted with 9 transgender female patients over 18 years of age who underwent surgery. Data were collected preoperatively, intraoperatively, and postoperatively through medical records and telephone surveys. Data analysis was performed using EXCEL version 2019 following the SAGER international guidelines. **Results:** The average age of the patients was 25.67 years. 78% had no chronic diseases. Minor complications were reported in 44.4% of cases, mainly infections. 88.9% expressed satisfaction with the care received, noting improvements in subjective well-being, aesthetics, and sexual function. **Conclusions:** Sex reassignment surgery is an essential resource for gender affirmation in transgender female individuals, improving their quality of life and emotional well-being. It is crucial to ensure inclusive policies that guarantee adequate access to this surgery and enhance comprehensive care for transgender female individuals.*

**Keywords:** Gender reassignment surgery, Trans female, Gender dysphoria, Surgical outcomes, Uruguay.

## 1. Introduction

The term transgender defines individuals whose gender identity and expression do not align with those generally associated with the sex assigned to them at birth [1]. For transgender people, aligning their gender with their body is not just a wish. It is often a deep need. Sometimes, this includes discomfort with primary and secondary sexual features, called gender dysphoria [2].

In Uruguay, the Comprehensive Law for Trans Persons (Law No.19.684 of 10/26/2018, Decree No.104/019) [3] stands out; trans persons have the right to the free development of their personality according to their own gender identity and to receive dignified treatment free from discrimination and stigmatization. Every individual has the right to request the adjustment of their registered name, sex, or both, when they do not coincide with their gender identity. Furthermore, everyone has the right to comprehensive care to align their body with their gender identity, including surgical medical treatments.

One of the therapeutic strategies for gender dysphoria is gender reassignment surgery (GRS), which specifically refers to genital reconstruction [4], often being the final and most

significant step in the treatment process for this entity. Follow-up studies have demonstrated an undeniable beneficial effect of GRS on postoperative outcomes such as subjective well-being, aesthetics, and sexual function [5].

The development of transfeminine gender reassignment surgery in Uruguay began in the late 1970s under the leadership of Prof. Dr. Jorge Lockhart at Hospital Maciel [2]. This work was advanced in 1991 by Prof. Dr. García Guido at Hospital de Clínicas, where the first transfeminine GRS was later performed by Prof. Dr. Roberto Puente in 2004. A significant milestone occurred in 2014 with the establishment of the outpatient clinic for transgender care at Hospital 'Gustavo Saint Bois' (UDA-Primer Nivel/ASSE). By 2017, the Urology Department at Hospital de Clínicas, directed by Prof. Dr. Roberto Puente, joined this initiative, consolidating a comprehensive and multidisciplinary approach to transgender health in the country [3].

The purpose of this study is to describe the results of transfeminine gender reassignment surgery at Hospital de Clínicas, Montevideo, from 2017 to 2022. This research adds new data on gender reassignment surgery outcomes in Uruguay, supporting ongoing improvement of care and policy for transgender people.

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2. Materials and Methods

A descriptive observational study was conducted on trans women who underwent gender reassignment surgery at the Hospital de Clínicas, Montevideo, Uruguay, from January 2017 to December 2022. The sample consisted of 9 patients. Inclusion criteria were trans women over 18 years of age who underwent GRS at this institution during the specified period. Data were collected through medical records and telephone surveys. Variables were categorized into preoperative, intraoperative, and postoperative. All data was kept

confidential. Every participant gave informed consent. International SAGER guidelines [6] were followed. Data description was performed using EXCEL version 2019.

3. Results

The age range of participants was 18–37 years (mean: 25.67; SD: 5.96).78% (n=7) had no prior chronic diseases, while 22% presented HIV as the sole comorbidity. Detailed surgical data were available for three patients (Table 1).

Table 1: Surgical-related variables data

Variable	Patient 1	Patient 2	Patient 3
<b>Preoperative Variables</b>			
Penile length (cm)	10	12	11
Penile circumference (cm)	6	6	6
Perineal length (cm)	8	8	9
Hemoglobin (g/dL)	15.4	14.4	15.6
<b>Intraoperative Variables</b>			
Type of anesthesia	General	General	General
Epidural analgesia	Yes	Yes	Yes
Prophylactic antibiotic type	Ampicillin/Sulbactam	Ampicillin/Sulbactam	Ampicillin/Sulbactam
Operative time (minutes)	255	230	270
<b>Postoperative Variables</b>			
Hemoglobin (g/dL)	11.8	11.4	11.8
Length of hospital stay (days)	8	8	8
Duration of epidural analgesia (days)	3	3	3
Drainage time (days)	4	4	3
Urinary catheterization time (days)	6	7	7
Time to initiation of vaginal dilations (days)	4	5	4

Minor complications (Clavien-Dindo I) occurred in 44.4% of patients; these included three infections (recurrent vaginal mycosis, urinary tract infection, and genital infection) and one meatal stenosis requiring surgical revision.88.9% (n=8) were

"very satisfied" and 11.1% (n=1) were "satisfied" with the surgical team’s care. Sexual, aesthetic, and voiding satisfaction are shown in Figure 1.

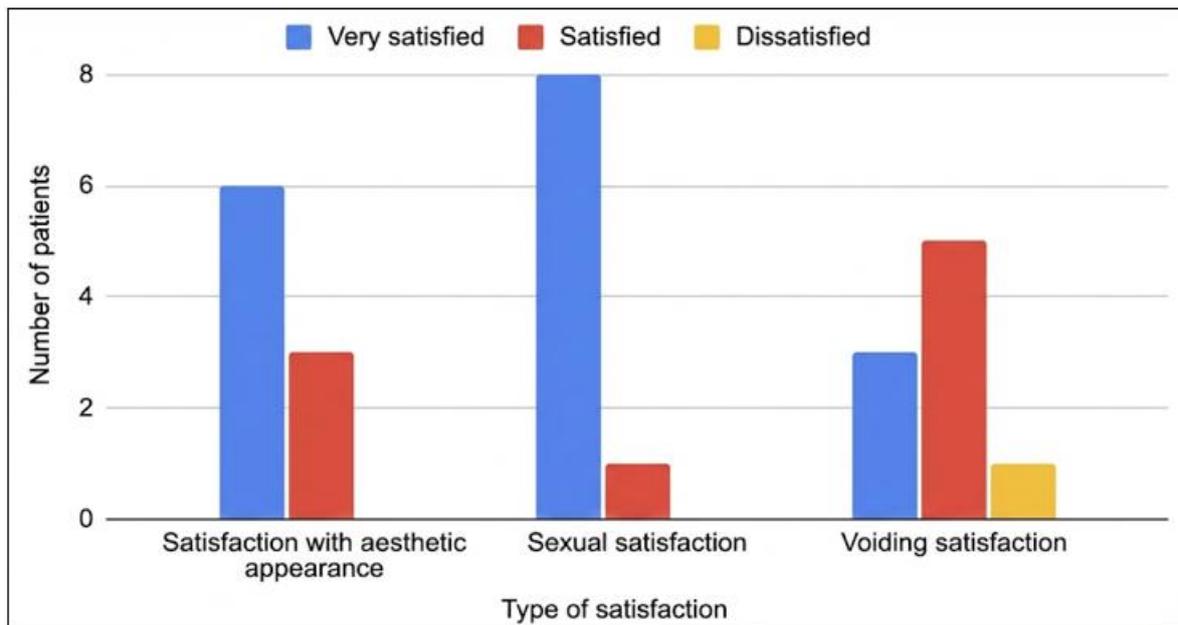


Figure 1: Sexual, aesthetic, and voiding satisfaction

Neovaginal use was reported by 66.7% (n=6) of patients for sexual intercourse (Figure 2), with a mean onset of 156.67 days (SD: 161.79; range: 30–365).88.9% (n=8) reported pleasurable sensations in the neovagina, and 100% in the

neoclitoris. The study found that 44.4% (n=4) of patients reported a 'spraying' urinary stream pattern.

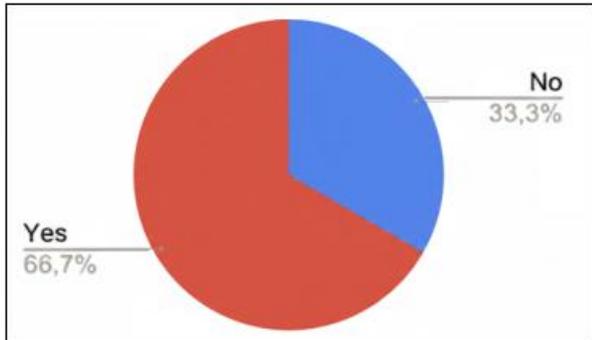


Figure 2: Neovaginal use



Figure 3: Final step in sex reassignment surgery in trans female patients, the neovagina can be observed with the tutor in the neocavity.

#### 4. Discussion

Eligibility criteria at the Hospital de Clínicas include: legal age, at least one year of continuous hormone therapy (if no contraindications), one year of successful "real-life experience," and a comprehensive understanding of the surgery (complications, rehabilitation, costs), recognizing it as an irreversible procedure. Pre-gonadectomy hormone therapy aims to provide a reversible period of testosterone suppression. Real-life experience should include full-time social transition verified by mental health specialists. Contraindications include diagnostic doubts, active psychiatric pathology with risk of decompensation, or surgical contraindications due to comorbidities.

Male-to-female GRS seeks to create external genitalia that look and function like female anatomy. Goals include a natural-looking vulva, a short urethra, and a functional vaginal lumen [7]. The technique used at our institution follows the principles described by Sava Perovic, utilizing all anatomical components of the male genitalia (except the corpora cavernosa) to construct the female genitalia, using a

penoscrotal skin flap for the neovagina. Average vaginal depth in literature ranges from 10 to 13.5 cm [8]. While Belinky [8] describes a mean surgical time of 4–5 hours and a 5-day hospitalization, our surgical times were similar, but hospitalization was longer on average.

Postoperative urinary and sexual functions are primary outcomes. Belinky reported a 95% satisfaction rate and 98% sexual sensitivity using neurovascular preservation [9]. Hoebke et al. noted that 13% of trans women reported changes in voiding habits, with 16% reporting some form of incontinence [10]. Conversely, Silva Herrera et al. observed that while orgasmic response was present in most cases, satisfaction and frequency varied [11].

#### 5. Conclusions

This study highlights GRS as a vital therapeutic resource for trans women in their gender affirmation process. Most patients expressed high satisfaction and experienced improvements in subjective well-being, aesthetics, and sexual function. 89.9% reported pleasurable sensations in both the neovagina and neoclitoris. Postoperative complications, though present, were minor and do not outweigh the significant benefits in relieving gender dysphoria and improving quality of life. Access and quality of GRS should be supported by inclusive medical policies.

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**Conflict of Interest:** The authors declare no conflicts of interest.

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