

## LETTER TO EDITOR

# Urogenital and extra genital mutilation in gender-affirming surgery: Are we violating *primum non nocere*?

Zeki Bayraktar

Department of Urology, Sancaktepe Sehit Prof Dr. Ilhan Varank Training and Research Hospital, University of Health Sciences, Istanbul, Turkey.

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## INTRODUCTION

In transgender individuals, there is a mismatch between biological sex and gender (sex-gender discordance), and this mismatch is often attempted to be resolved by changing the sex (1). However, sex cannot be changed through surgery or hormones, because sex has immutable components such as genetic/chromosomal (XX/XY), gonadal (testis/ovary), skeletal-pelvic (androgenic/gynecoid), gametic (sperm/oocyte), pregnancy (possible/not possible), lactation (possible/not possible), and internal-external genital structures. Removing or destroying sexual organs does not change sex; it only leads to urogenital mutilation. On the other hand, the perception of gender (or gender dysphoria) can change at any time, especially during adolescence (2).

### *Gender-affirming surgery and mental health*

*Gender-affirming surgery* (GAS) is not performed to treat a congenital anatomical or functional disorder (since transgender individuals do not have such a pathology) but to address the psychological issues of transgender individuals. This is the justification put forward for GAS (1). However, there is no conclusive evidence in the literature to support this justification. The *U.S. Centers for Medicare & Medicaid Services* reviewed all relevant studies to assess whether these surgeries should be covered by insurance and prepared a comprehensive report, ultimately rejecting the request. The report states that the studies are inconsistent; when taken collectively, the evidence is insufficient. Most studies are not longitudinal, or they do not include concurrent pre- and post-operative controls/tests. Many studies have reported positive outcomes, but the strength and reliability of these results are low due to the aforementioned potential issues. Four well-designed and executed studies were identified (2-6), but these also did not show a clinically significant difference in quality of life measured by psychometric tests before and after surgery (7).

GAS does not improve the psychological issues of transgender individuals; on the contrary, it worsens them. A community-based study conducted in Sweden found that transgender individuals who underwent surgery had more mental health problems and treatment requests compared to those who did not undergo surgery. The use of anxiolytics and antidepressants, as well as suicide rates, were higher in the surgery group-hospitalizations due to suicide attempts were nearly twice as high (8).

When this study was first published, it claimed that GAS improved mental health, but after objections and a re-analysis of the data, it was revealed that this was not the case, and in fact, the opposite was true. The authors and the journal acknowledged this and published a correction (9). *How could such a major analytical error have been overlooked by the reviewers of a journal like the American Journal of Psychiatry? Normally, this would not be possible, but it happened. Why? Are academic publications that promote GAS being positively biased?*

Other studies also show that GAS does not improve psychological issues and even worsens them in some patients. A study conducted at *New York University* found that in about one-fifth of cases, mental health worsened after surgery (10). Another study conducted at the *University of California* reported that 53% of individuals who underwent GAS visited the emergency department within the first year, and 17.3% of these cases were due to psychiatric issues (11). A study at the *University of Texas* examined millions of patient records and found that individuals who underwent GAS had 12 times higher suicide rates, 10 times higher rates of self-harm and suicide attempts, 8 times higher rates of *post-traumatic stress disorder* (PTSD), and 3.3 times higher mortality rates (12).

The Swedish cohort, which has about 30 years of follow-up (the longest and most comprehensive study on this topic), confirms these findings, showing that mental health issues persist even after GAS and continue throughout life. In this cohort, the overall mortality rate of transgender individuals who underwent surgery was three times higher compared to the general population, hospital admission rates were three times higher, and completed suicide rates were 19 times higher (13).

### **Urogenital and extra-genital mutilation in gender affirming surgery**

GAS does not improve the psychological issues of transgender individuals, and in addition, it results in urogenital and extra-genital mutilation (Figures 1-3). *Male-to-female* (MtF) surgical procedures result in urogenital mutilation, while *female-to-male* (FtM) procedures result in both urogenital and extra-genital mutilation (if phalloplasty is performed) (14-19). Transgender individuals who undergo GAS lose their reproductive function completely and almost entirely lose their sexual function, while their urinary function is also significantly impaired. Surgical complications requiring revision, which reduce the quality of life, are common (20).

A meta-analysis conducted by Wang *et al.* reported an overall complication rate of 76.5% after phalloplasty, with a urethral fistula rate of 34.1% and a urethral stricture rate of 25.4% (14). Veerman *et al.* (15) also reported a urethral stricture rate of 63% and a revision requirement due to fistula or stricture in 73% of cases, concluding that genital gender-affirming surgery with urethral lengthening is a complex procedure with a high complication rate. After addressing complications, no clinically significant differences in urological functioning were observed. Even after additional surgeries, 30% of patients lost the ability to urinate from the tip of the penis.

When phalloplasty is performed, the arm or leg from which the flap is taken is also mutilated (Figure 4). These limbs are damaged not only cosmetically, but also neurologically and functionally, and all develop pain (16).

In a meta-analysis by Horbach *et al.*, complications of MtF procedures were listed as follows; changes in urinary function 32%, urinary incontinence 19%, wound dehiscence 12-33%, vaginal stenosis 12%, genital pain 3-9%, vaginal necrosis 2.7-4.2%, rectal injury 2-4.2%, rectovaginal fistula 1-17%, urethral stricture 1-6%, local abscess 5%, hematoma 3%, clitoral necrosis 1-3%, vaginal prolapse 1-2% (17).

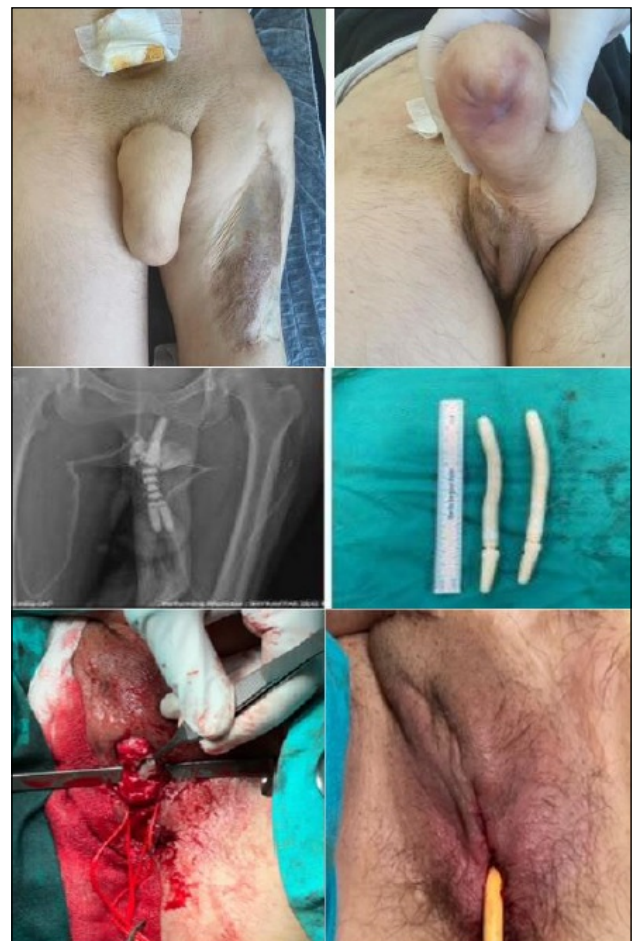
#### **Figure 1.**

*Urogenital and extra genital mutilation in a FtM case [A FtM patient who applied with a complaint of total incontinence, a flap was taken from the left arm in another center and a neophallus was performed, but flap necrosis developed, a flap was taken from the right leg and a neophallus was performed again, but this time urethral necrosis developed, perineal externalization was performed, the patient received periurethral submucosal injections twice by us, he partially benefited, his incontinence decreased – this patient had 14 surgeries for FtM procedures – including revisions].*



#### **Figure 2.**

*Urogenital and extra genital mutilation in other FtM case [A FtM patient presented with severe pain in the left leg and inability to urinate/urethral obstruction; the dysfunctional penile prosthesis was removed, urethrotomy was performed internally but was unsuccessful, urethral externalization was performed; this patient underwent 17 surgeries for FtM procedures – including complications].*



**Figure 3.**

An MtF case presenting with complaints of difficulty urinating and pain. The patient, who had undergone surgery at another center, exhibited swelling, pain, and tenderness below the urethral meatus. The patient frequently experienced infections, pain, and swelling, was unable to engage in sexual intercourse, and had persistent urination problems (in MtF cases, the urethra is severed at the level of the bulbar urethra; therefore, the visible meatus in this case is actually a severed bulbar urethra. This urethra remains in continuous contact with neighboring tissues and the atmosphere, much like an open wound, leading to frequent infections).

**Figure 4.**

Sequels (extra-genital mutilation) in the arm and leg from which the flap was harvested in cases of phalloplasty.

### ***Deterioration in quality of life and shortening of lifespan***

Kuhn *et al.* found a significantly reduced quality of life in transgender individuals 15 years after vaginoplasty, listing complications as follows: urinary dysfunction 47%, urgency 25%, stress incontinence 23%, inability to achieve sexual satisfaction 23%, urgency 17%, fecal incontinence 9.4%, difficulty or inability to fully empty the bowels 7.6%, vaginal prolapse 7.5%, and revision surgery due to prolapse 3.4% (18).

Kuhn *et al.* also report that the urogenital complications of GAS are underreported in the literature (these rates are actually higher). Because transgender individuals who undergo GAS are quite reluctant to express their urogenital issues, so these problems are likely underreported (18), (19). Indeed, Kamran *et al.*, who examined *patient-reported outcome measures* (PROMs) in 286 studies representing over 85,395 transgender cases in more than 30 countries, found that patient reports were absent or incomplete in most studies (21).

One of the dramatic outcomes of GAS is the shortening of life expectancy. For instance, while the expected average life span in the Danish population is 81.9 years for women and 78 years for men, the average age of death for transgender individuals who underwent GAS was found to be 53.5 years (22). These data indicate that transgender individuals who undergo GAS die on average 25-28 years earlier, meaning their lives are shortened by about one-third due to psychiatric issues, the side effects of hormones used, cancers, lung, cardiovascular diseases, infections, and surgical complications (22, 23).

### ***Is gender affirming surgery systematic iatrogenic harm?***

These data show that GAS violates the medical principle of "first, do no harm" (*primum non nocere*) and systematically harms transgender individuals. In my opinion, GAS is the greatest systematic iatrogenic harm in the history of medicine. Transgender individuals have serious mental health issues and need psychosocial support because of these problems (24). However, GAS does not provide them with any tangible benefit; on the contrary, it harms them. As surgeons, we are not improving the mental health issues of transgender individuals with GAS; instead, we are collaborating with their mental health issues and, by engaging in consent engineering, mutilating them urogenitally. In short, we do not treat

them; we victimize them. GAS does not change sex; it results in sexual mutilation. GAS is partially feminization or masculinization, but predominantly mutilation. Transgender individuals do not need mutilating surgeries but treatments that provide concrete benefits based on a risk-benefit analysis. *When and how will transgender individuals access these treatments?* As specialists, we need to conduct new studies to develop the treatment options transgender individuals need and, more importantly, discuss this issue independently of ideology (based on medical evidence). Transgender individuals need treatments based on biological evidence, not ideological views. Current medical practices, particularly GAS procedures, are mutilating transgender individuals, and they must be reviewed.

In ancient times, it was believed that mental illnesses were caused by demons and that drilling holes in the skull would allow them to escape—this led to cranial trepanation (25). Just as today we look back on cranial trepanation with mockery and astonishment, I believe that future medical professionals will look at GAS the same way, saying, *"It's hard to believe, but in the 21st century, doctors-surgeons tried to treat gender dysphoria with surgery and attempted to change sex by removing urogenital organs, resulting in urogenital mutilation."*

## CONCLUSIONS

In conclusion, transgender individuals who undergo GAS lose their reproductive function irreversibly and almost entirely lose their sexual function, while their urinary function is also significantly impaired. If phalloplasty is performed, the arm or leg is also mutilated. In addition, many complications from surgeries arise. So what do they gain for all these losses? Nothing (it is claimed that their mental health improves, but there is no definitive evidence in the literature to support this claim, and in fact, there is evidence to the contrary). *So, what is the reason for this insistence on GAS?*

As a surgeon/urologist licensed to perform GAS, I find these surgical procedures unethical and follow current medical practice with concern. I am making these reminders to fulfill my professional and moral responsibility and to recommend that GAS procedures that harm transsexuals be reviewed. We must act according to the principle of *"First, do no harm"* and our priority should be to avoid harming our patients.

## REFERENCES

1. Coleman E, Radix AE, Bouman WP, et al. Standards of care for the health of transgender and gender diverse people, version 8. *Int J Transgend Health.* 2022; 23(Suppl 1)-S259.
2. Kuo JH, Carrera RA, Mulyani LC, et al. Exploring the interaction effects of gender contentedness and pubertal timing on adolescent longitudinal psychological and behavioral health outcomes. *Front Psychiatry.* 2021; 12:660746.
3. Heylens G, Verroken C, De Cock S, et al. Effects of different steps in gender reassignment therapy on psychopathology: a prospective study of persons with a gender identity disorder. *J Sex Med.* 2014; 11:119-26.
4. Ruppin U, Pfäfflin F. Long-term follow-up of adults with gender identity disorder. *Arch Sex Behav.* 2015; 44:1321-29.
5. Smith YL, Van Goozen SH, Kuiper AJ, Cohen-Kettenis PT. Sex reassignment: outcomes and predictors of treatment for adolescent and adult transsexuals. *Psychol Med.* 2005; 35:89-99.
6. Udeze B, Abdelmawla N, Khoosal D, Terry T. Psychological functions in male-to-female people before and after surgery. *Sex Relatsh Ther.* 2008; 23:141-45.
7. Jensen TS, Chin J, Rollins J, et al. Gender dysphoria and gender reassignment surgery. 2016. <https://www.cms.gov/medicare-coverage-database/view/ncacal-decision-memo.aspx?proposed=N&NCAId=282&bc=ACAAAAAQAAA&>
8. Bränström R, Pachankis JE. Toward rigorous methodologies for strengthening causal inference in the association between gender-affirming care and transgender individuals' mental health: response to letters. *Am J Psychiatry.* 2020; 177:769-72.
9. Correction to Bränström and Pachankis. *Am J Psychiatry.* 2020; 177:734.
10. Robinson IS, Blasdel G, Cohen O, et al. Surgical outcomes following gender-affirming penile reconstruction: patient-reported outcomes from a multi-center, international survey of 129 transmasculine patients. *J Sex Med.* 2021; 18:800-11.
11. Zhang TR, Harel D, Rivera A, et al. Incidence, complications, and long-term outcomes of gender-affirming phalloplasty: analysis of a large statewide population-based dataset. *Urology.* 2024; 185:27-33.
12. Straub JJ, Paul KK, Bothwell LG, et al. Risk of suicide and self-harm following gender-affirmation surgery. *Cureus.* 2024; 16:e57472
13. Dhejne C, Lichtenstein P, Boman M, et al. Long-term follow-up of transsexual persons undergoing sex reassignment surgery: cohort study in Sweden. *PLoS One.* 2011; 6:e16885.
14. Wang AMQ, Tsang V, Mankowski P, et al. Outcomes following gender-affirming phalloplasty: a systematic review and meta-analysis. *Sex Med Rev.* 2022; 10:499-512.
15. Veerman H, de Rooij FPW, Al-Tamimi M, et al. Functional outcomes and urological complications after genital gender-affirming surgery with urethral lengthening in transgender men. *J Urol.* 2020; 204:104-109.
16. Peters BR, Sikora Z, Timmins BH, Berli JU. Nerve morbidity at the radial forearm donor site following gender-affirming phalloplasty. *J Plast Reconstr Aesthet Surg.* 2022; 75:3836-44.
17. Horbach SER, Bouman MB, Smit JM, et al. Outcome of vaginoplasty in male-to-female transgenders: a systematic review of surgical techniques. *J Sex Med.* 2015; 12:1499-512.

18. Kuhn A, Hildebrand R, Birkhäuser M. Do transsexuals have micturition disorders? *Eur J Obstet Gynecol Reprod Biol.* 2007; 131:226-30.
19. Kuhn A, Santi A, Birkhäuser M. Vaginal prolapse, pelvic floor function, and related symptoms 16 years after sex reassignment surgery in transsexuals. *Fertil Steril.* 2011; 95:2379-82.
20. Bayraktar Z. Urogenital complications that decrease quality of life in transgender surgery. *New J Urol.* 2024; 19:52-60.
21. Kamran R, Jackman L, Chan C, et al. Implementation of patient-reported outcome measures for gender-affirming care worldwide: a systematic review. *JAMA Netw Open.* 2023; 6:e236425.
22. Simonsen RK, Giraldi A, Kristensen E, Hald GM. Long-term follow-up of individuals undergoing sex reassignment surgery: psychiatric morbidity and mortality. *Nord J Psychiatry.* 2016; 70:241-7.
23. Simonsen RK, Hald GM, Kristensen E, Giraldi A. Long-term follow-up of individuals undergoing sex reassignment surgery: somatic morbidity and cause of death. *Sex Med.* 2016; 4:e60-8.
24. Heylens G, Elaut E, Kreukels BP, et al. Psychiatric characteristics in transsexual individuals: multicentre study in four European countries. *Br J Psychiatry.* 2014; 204:151-6.
25. Gualdi-Russo E, Lefebvre P, Arnaud J. Cranial surgery in antiquity: the size of trepanations during the Neolithic period in France. *World Neurosurg.* 2024; 190:131-40.

## DECLARATIONS

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## Correspondence

Zeki Bayraktar, MD (Corresponding Author)  
dr.zekibay@gmail.com

Department of Urology, İlhan Varank Training and Research Hospital,  
University of Health Sciences, 34895, Sancaktepe, Istanbul, Turkey