

The Latent Risk of Prostatitis In Transgender Population.

Raquel Domínguez Tapia^{1*}, Nelson Marcel Ortega Sambo¹, Blanca Sanz Pozo², Nuria Gil Mancebo³, Diana Carolina Rosendo Mesino¹

¹Family and Community Medicine Resident. Gerencia Asistencial de Atención Primaria, Servicio Madrileño de Salud. Madrid, Spain

²Family and Community Medicine Doctor.

Gerencia Asistencial de Atención Primaria, Servicio Madrileño de Salud. Department of Medicine. School of Medicine, Health and Sport.

European University of Madrid. Spain.

³Cardiology Medicine Resident, Spain

***Corresponding Author:** Raquel Domínguez Tapia, Family and Community Medicine Resident, Spain.

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Abstract

This clinical case is about a 29-year-old woman patient with recurrent urinary tract infections (UTIs). She has a history of gender reassignment surgery 1 year ago, she is a transgender woman, and residual urethral stenosis. In this patient prostate is still present and should be treated as prostatitis. Diagnosis of prostatitis is made in about 25% of male patients with urinary tract infections. In addition, there is a steady increase in transgender population. There are very few scientific reports on the correlation of sex reassignment surgery with prostatitis, so this clinical case is a fundamental one and will provide novel information.

Keywords: transgender person, urinary tract infections, prostatitis, recurrence.

Introduction

Prostatitis syndromes are a very common presentation in the clinical setting and tend to occur in young and middle-aged men [1]. Nonetheless, acute bacterial prostatitis accounts for a minority. In studies in the United States, 5 percent listed genitourinary tract symptoms as one of the reasons for visiting the health center [2]. Prostatitis was listed as a diagnosis in an estimated 25% of visits annually. Acute bacterial prostatitis, however, accounted for only 4 percent of prostatitis diagnoses.

It is important to note that underlying conditions, such as functional or anatomical abnormalities, such as urethral strictures or gender reassignment surgery, which predispose to other urogenital infections and can increase the risk of prostatitis, are a very important risk factor [3].

Clinical Case:

This clinical case is about a 29-year-old woman with no known drug allergies, on treatment with estradiol 3 mg per day and a history of vaginoplasty for gender reassignment surgery 1 year ago. This woman has a residual urethral stenosis and recurrent urinary tract infections (UTIs).

She goes to the health center with fever reaching up to 40°C, disuria and increased urinary frequency lasting 2 days.

The patient's temperature was 39.3°C, blood pressure was 110/65, heart rate was 120 bpm, abdominal examination was normal, and bilateral renal punch percussion was negative.

Given these symptoms and her surgical history, a complicated urinary tract infection is suspected and she is referred to the hospital, where she is admitted.

Based on previous urine cultures, empirical treatment with intravenous ampicillin was initiated.

With the urine culture result positive for *Enterococcus Faecalis*, the treatment is maintained for the following 10 days. The result is favorable and she is discharged.

Thirteen days later, she returns presenting a fever and in the physical examination with negative renal punch in both side. Empiric ampicillin and ceftriaxone were prescribed awaiting the results of the antibiogram. *Enterococcus faecalis* is found again in both urine and blood cultures, which raises other diagnostic possibilities such as prostatitis recurrence.

An ultrasound examination is performed, which rules out complications. No prostatic abscess is observed (**Figure I**) [4].



At the time of discharge, once the good evolution and absence of complications had been confirmed, Cefixime (400 mg per day for 3 weeks) was prescribed. A cycle of treatment is completed in the hospital and given the good evolution, it is continued at home.

Discussion

Regarding the urinary symptoms associated with fever in women, cystitis or pyelonephritis should be considered.

In men, prostatitis, as a complicated urinary tract infection, should always be ruled out [5].

Therefore, prostatitis is suspected when very high fever and perineal pain are added to urinary symptoms.

During the exam, the digital rectal exam may be painful and the prostate will appear congested and warm [6].

Initially, this differential diagnosis was not taken into account in this patient and she was treated as complicated cystitis. However, when it was repeated 13 days later, she was admitted and another cause was sought.

The main reasons for the recurrence of UTI can be poor adherence to treatment or incorrect treatment or diagnosis. For this reason, the case was studied in depth and it was considered that due to the anatomical alteration of vaginoplasty due to transgender surgery, it could be a great risk factor for complicated urinary tract infection [7].

The first feminizing genital surgeries were performed in the 1930s in Germany. At that time, the term "transsexual" had been coined by the sexologist Magnus Hirschfeld, who cared for and studied transgender individuals.

Lili Elbe, a Danish transgender woman, is historically regarded as one of the first to undergo gender affirmation surgery in Dresden, Germany, in the 1930s.

Penile inversion vaginoplasty — The most common technique performed for primary male-to-female transgender vaginoplasty is penile inversion vaginoplasty. Penile inversion vaginoplasty is irreversible and generally includes orchiectomy (if not previously performed), penile deconstruction, formation of a sensate neoclitoris from a portion of the glans penis on its dorsal neurovascular pedicle, creation of a neourethral meatus, creation of a vaginal cavity and lining of the neovagina with local penoscrotal skin flaps, and labiaplasty to create an aesthetic and feminine external appearance of the genitalia [8, 9].

For this reason, prostatitis was considered, given that the prostate was preserved.

Acute prostatitis is an inflammation of the prostate caused by gram-negative bacteria. The prevalence is low, but this condition must be considered due to the severity of its complications (sepsis, prostatic abscess, among others). Diagnosis is usually clinical alongside a rectal examination. It is advisable to request a urine culture to identify the pathogen and guide specific antibiotic treatment. If the outcome is unsatisfactory, further investigations like ultrasound should be performed. Early treatment with empiric antibiotics is necessary until culture results are received [10].

Antibiotics in this case must be effective against the most common microorganisms, capable of penetrating the prostate, and without potential for developing local bacterial resistance. Commonly prescribed are trimethoprim-sulfamethoxazole, fluoroquinolones,

or third-generation cephalosporins. Prolonged therapy is recommended due to the low penetration of antibiotics into the prostate to prevent chronic prostatitis, typically requiring a treatment course of 4-6 weeks [11].

Conclusion

This clinical case shows us the importance of gender reassignment surgery as a risk factor for complicated urinary tract infections.

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This is very important because there are very few published cases of gender reassignment, as it is relatively recent.

The gender perspective is crucial in the evaluation of the pathologies of our patients today since there are specific diseases for each biological sex, and some patients cannot be treated solely based on their assigned gender.