Trauma and reconstruction

Rare cause of testicular torsion in a transwoman: A case report

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A R T I C L E   I N F O

Keywords:
Testicular torsion
Scrotal pain
Transwoman
Tucking

A B S T R A C T

Testicular torsion (TT) presents as an acute scrotal pain, associated with anatomical, traumatic and environmental factors. This is a case of a 24-year-old transwoman with right scrotal pain and a Doppler ultrasound result of decrease flow in the right testicle. Patient wanted to have bilateral orchiectomy but after counselling, radical orchiectomy was performed. As a primary care provider, we should recognize TT as a possible cause of testicular pain using a triad of history, examination and investigation. This highlights awareness among transgenders, that tucking can limit their chances to have a biological child in the future.

Introduction

Testicular torsion (TT) is a true surgical emergency which presents as a sudden onset of severe unilateral scrotal pain at rest. It affects approximately 1/4000 males under 25 years, with highest prevalence between 12 and 18 years old. The exact etiology is not yet known, although the anatomical ‘bell clapper’ deformity, trauma, environmental factors, and familial history of testicular torsion have been suggested as risk factors.¹

The rotation and subsequent arterial constriction results in ischemia causing damage to the testis tissue, thus the earlier the surgical intervention, the higher the likelihood of testicular salvage. The two most important factors determining testicular damage are the time from the onset of symptoms to the reduction of torsion and the degree of twisting in the cord. The affected testis can be completely removed by performing an orchiectomy or can be manually untwisted and fixated in the scrotum by orchiopexy.²

Case report

The patient is a 24-year-old male who presented with a 10-h history of right scrotal pain, radiating to the right lower abdomen and right inguinal area associated with progressive right scrotal swelling.

Patient was initially decked in Family Medicine service where physical examination findings revealed right scrotal swelling with tenderness and erythema. TWIST (Testicular workup for Ischemia and Suspected Torsion) score result was 4 which considered as an intermediate – risk, thus Stat Ultrasound evaluation.

Doppler ultrasound revealed decrease flow in the right testicle suggestive of testicular torsion thus, primed for possible right orchiectomy but he decided to do bilateral orchiectomy instead. Risks of bilateral orchiectomy especially on the infertility were presented to the patient and after an hour, patient consented for right orchiectomy and subsequently transferred to Surgery service.

He cross-dressed as a female and part of this required tucking or physical manipulation of his testicles by slipping them back into the inguinal canal and pulling the empty scrotum and penis down and back toward the space between his buttocks then wearing a tight fitting underwear. In order to return his testicles to normal position, he would grab his scrotum and spermatic cord to pull his testicles out of his inguinal canals. He tucks 2–4 times a week for 6 years and experienced discomfort and slight pain which he tolerated. Patient was also taking anti – androgen pills (Cyproterone acetate 2mg, Ethinyl estradiol 35 mcg) for 6 years to facilitate feminization.

On Physical Examination, the right scrotum was swollen, smooth, firm with erythema and tenderness (Fig. 1). Right testicle is elevated and assumed a horizontal position, opposite with the vertical position of left testicle (Fig. 2). There was negative Prehn’s sign and negative cremasteric reflex.

Discussion

The scoring system TWIST is an important step to evaluate patients with acute scrotal pain. Sheth and colleagues’ prospectively studied 128 patients with torsion and concluded that TWIST score assessed by non-urologist, is accurate and the scores will guide radiological evaluation and immediate surgical intervention at initial assessment long before urological consultation. Thus, clinical assessment and the
calculation of TWIST score is useful especially to primary care physicians to assess risk of torsion based on a symptom score and can be used to avoid unnecessary ultrasound confirmation of torsion prior to surgical exploration.

In 2016, Epps and colleagues⁴ reported the first case of testicular torsion in a 28-year-old male due to self–testicular manipulation during acts associated with cross dressing. Although some articles reported trauma as a cause of torsion in tucking due to self-induced twisting of the spermatic cord, the exact mechanism remains unknown.

**Conclusion**

We presented a case of an adult transwoman with right testicular torsion caused by tucking. While not as frequently encountered in adults and patient’s history revealed an unusual cause of testicular torsion, this should always and highly be considered in the differential diagnosis of acute scrotum. Delayed diagnosis should be avoided since timely intervention is essential for successful outcome and increase likelihood of preserved testicular function. Immediate surgical exploration with detorsion and fixation of testis is recommended, but informed consent should be done since long – term prognosis is unknown.

This case highlights the importance of primary care providers to recognize testicular torsion as a possible cause of testicular pain and have a prompt urology referral when suspected. As in this case, the patient already experiences discomfort and pain for 6 years because of tucking which is also the same with other transgenders but they are reluctant to seek medical care for testicular complaints and when they do, it may be already late to salvage the testis. With this second reported case, the patient with the same gender may become aware that tucking could create a suboptimal environment for spermatogenesis and worst, can cause testicular loss due to torsion. Although at younger age, transwomen desires to hide their testicles or wished to have gender – affirming surgery, as they grow older many transgender individuals desire to have biological children, thus awareness of the problem should be disseminated for them not to resent in years to come.

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