Trauma and Reconstruction

From Tucking to Twisting; A Case of Self-induced Testicular Torsion in a Cross Dressing Male

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ABSTRACT

A self-induced, non-traumatic testicular torsion is a rare entity that to our knowledge has not been reported in the literature. We report the case of a 28-year-old male who caused a self-induced testicular torsion during acts associated with cross dressing. Differential diagnosis of the acute scrotum in an adult should always include testicular torsion, as outcomes in this population are worse than in younger populations. Additional unusual causes of testicular torsion are reviewed.

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Introduction

A self-induced non-traumatic testicular torsion is a rare entity that has yet to be reported in the literature. The vast majority of testicular torsions occur in the absence of any sentinel event. Trauma induced testicular torsion accounts for approximately 4%–8% of torsion cases. To our knowledge, this is the first report of testicular torsion in an adult due to self-testicular manipulation. The age distribution of testicular torsion has two peaks, one in the neonatal period and the second in the pubertal period. Although more common in younger males, several studies have reported adult rates ranging from 10% to 55%. This may serve as a reminder of the importance of considering testicular torsion in adults presenting with an acute scrotum.

Case presentation

The patient is a 28-year-old HIV positive (untreated) male who presented to the emergency department with a 4-day history of right testicular pain. The patient had no previous history of torsion or genitourinary problems. The patient reported that he cross-dressed as a female. Part of this activity entailed physical manipulation of his testicles into his inguinal canals when he dressed in female attire. 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. His pain began when he returned his testicles from the inguinal region four-days prior to presentation. Over this four-day course, he experienced increasing pain, nausea, testicular swelling, and low-grade temperatures. Clinical exam was consistent with an enlarged, indurated right testicle. Doppler ultrasound revealed no flow to the right testicle and he was subsequently taken for scrotal exploration. Upon scrotal exploration, the right testicle was found to have a 360° rotation of the right spermatic cord. After reduction of torsion (Fig. 1), the testicle was appreciated to be grossly necrotic with Doppler study revealing absent blood flow. Simple orchiectomy was subsequently performed. A left testicular fixation was performed. The patient did well post-operatively and was discharged home the next day. He was seen in follow-up where he denied any further issues.

Discussion

A diagnosis of testicular torsion in adults may be elusive due to a low degree of suspicion by clinicians as well as a lower incidence of torsion and higher incidence of epididymal orchitis in adults. Testicular torsion cases in adults have been reported to have a longer onset to presentation time. In a series of 44 patients, Cummings and colleagues reported that the average time to presentation in adults (21–34 years old, N = 17) was 65 h versus 36 h in the younger age group (<21 years old, N = 27). Clinical uncertainty resulting in delayed diagnosis as well as an increased time to presentation puts adult males with torsion at a higher risk for adverse outcomes. Familiarity with some documented unusual causes of testicular torsion may aid in a crucial early diagnosis.
Also in the series by Cummings, the degree of spermatic cord twisting was reported as an average of 585° in the adult group and an average of 431° in the younger age group. This further reinforces the possible severity of testicular torsion in this population. In a meta-analysis, Visser and colleagues reported an operative salvage rate of only 20% after a greater than 24 h delay of surgical treatment. It is fair to say that delayed treatment outcomes are poor at best, outlining the importance of considering torsion in an adult patient with the acute scrotum.

In this case, the patient's history contributed toward development of the differential diagnosis. Had he not endorsed a history of self-testicular manipulation, he may have potentially been treated with a course of antibiotics for a possible epididymal orchitis given his untreated HIV status as well as his age. This may have been particularly prudent if he had presented to a smaller facility where ultrasound is not always available. In our case, there was a very high degree of suspicion for a testicular torsion based upon history and this was quickly confirmed by his Doppler ultrasound. This provided for a quicker operative room evaluation and although the testicle was ultimately not salvageable, the patient was able to be treated and have his symptoms alleviated more quickly.

Unusual causes of testicular torsion documented in the literature include various traumatic events; A knee to the groin while wrestling, a collision with a pole while playing football, a straddle injury onto a pile of lumber after a fall, trauma from striking a pool of water when jumping into a pool, and a fall in which there was a scrotal injury after collision with a door knob. Additional rare cases include a torsion status-post hydrocelectomy as well as a bilateral torsion induced during masturbation.

**Conclusion**

We present a unique case of self-induced testicular torsion in an adult male. While not as frequently encountered in adults, testicular torsion should always be considered in the differential diagnosis of the acute scrotum. Timely intervention and avoidance of delays in diagnosis and treatment are essential to successful outcomes.

**Conflicts of interest**

The authors have no disclosures or conflicts of interest related to this manuscript.

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