CASE REPORT
General Urology

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Testicular Torsion: Not Just in Young Men

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Abstract

Testicular torsion (TT) is a urological emergency, which requires a time-sensitive approach to diagnosis and management. TT predominantly presents with severe, sudden onset, unilateral testicular pain in men under the age of 21. It is a clinical diagnosis with assistance from a scrotal ultrasound or confirmation via scrotal exploration. Here we present an interesting case of a 67-year-old man with TT. This case demonstrates that medical professionals should have a high degree of clinical suspicion for men of all ages with unilateral scrotal pain.

Keywords: Testis torsion, scrotal pain, orchidectomy

Introduction

Testicular torsion (TT) is a urological emergency, occuring when the contents of the spermatic cord twist within the tunica vaginalis causing ischemia of the testis. TT has a bimodal incidence, it is seen in neonates and post pubescent boys between the ages of 12-18 (1,2). The incidence of TT is approximately 3.8 in 100.000 men under the age of 25 (3), with 6% of these occurring in men older than 31 (4).

Case Report

A 67-year-old man presented to the emergency department with a 24-hour history of acute, right-sided testicular pain radiating to the flank. The pain was described to be intermittent and episodic for over 50 years, often lasting for several hours at a time and it felt like his testicle was twisted. The pain would then gradually alleviated when lying flat. There was no other significant past medical or surgical history.

On examination, his right testis was swollen, tense and mildly tender. A testicular ultrasound (US) showed features consistent with right testicular and epididymal torsion with infarction (Figure 1). The US also showed arterial Doppler flow present in the left testicle and bilateral complex hydroceles. All other investigations were otherwise normal.

Upon urgent surgical exploration, the right testicle was torted to 900 degrees, with signs of associated ischemia/infarction (Figure 2). The testicle was not viable and orchidectomy was performed. His left testis demonstrated "Bell Clapper deformity" and testicular fixation was performed. Post-operative histopathology showed changes in keeping with hemorrhagic infarction.

Discussion

The most common diagnosis for adults with acute scrotal pain over the age of 25 years is epididymo-orchitis. In this age group, TT occurs less frequently and often with a worse prognosis due to a delay in diagnosis and management leading to a greater degree of torsion of the testis (5). The viability of a testis torted for more than 24 hours is less than 10% leading to severe testicular ischemia (6).

A diagnostic TT can be made with a high index of clinical suspicion after a thorough history and examination. Patients commonly present reporting severe, sudden onset, unilateral testicular pain. Physical examination findings may show a patient with a swollen testis, erythematous and be tender on palpation. Further findings may include a horizontal or high riding testicle and an absent cremasteric reflex (7). Imaging of a suspected TT is primarily conducted by Doppler US of the

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scrotum. US images are compared to the contralateral testicle and may indicate TT through findings such as a whirlpool sign or reduced flow seen as decreased or no waveform on colour Doppler (8). Complications of TT occur secondary to testicular ischemia and are closely related to the degree of torsion of the testis and ischemic duration. TT may lead to sub/infertility, testicular infarction, necrosis, and loss of the testis (9).

Goh et al. (10) found that men over the age of 50 years were being misdiagnosed on the first presentation, 53.8% of the time. 57% of these men required orchidectomy, with a salvage rate of 43%. On exploration, elderly men were also seen to have higher degrees of torsion of 585 degrees, compared with 431 degrees in men under the age of 21 (5).

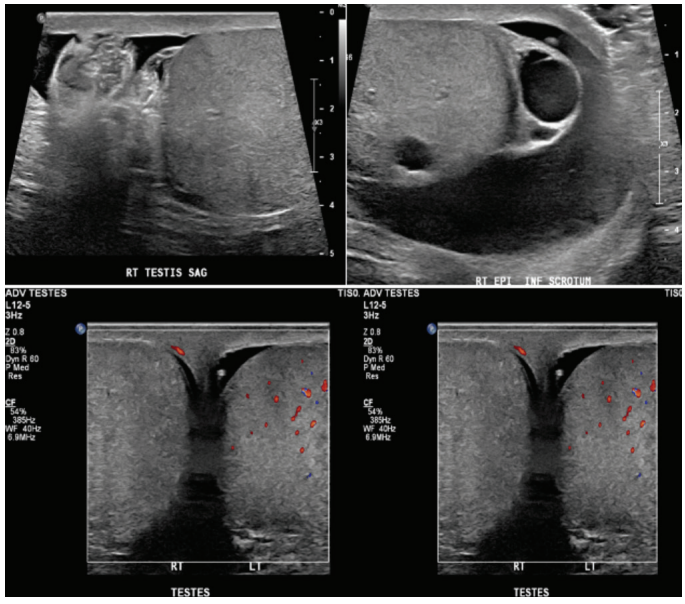

Figure 1. Preoperative ultrasound showing a loss of power doppler in the right testicle indicating ischemia (4 panel figure)

Figure 2. Intra operative image of the torted testis with signs of associated ischemia/infarction

Here, our patient also presented with Torsion-detorsion syndrome (TDS). TDS is defined as intermittent, sharp testicular pain with intervals in which the patient is asymptomatic (11). This occurs due to periods in which the testis is torted then deported causing ischemic and reperfusion injuries. Men with a long history of acute on chronic scrotal pain should be examined further for the risk of TDS. This could reduce the likelihood of TT later in life.

This case report highlights the importance of maintaining TT as a differential diagnosis for acute scrotal pain in older men. With the potential severity of TT, the need to diagnose and treat early is essential. Therefore, the treating doctor should keep a high degree of clinical suspicion of TT in men of all ages.

Ethics

Informed Consent: Written and informed consent from the patient was obtained for publishing.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: S.H., C.V., M.J.R., Concept: J.S., S.H., M.J.R., Design: J.S., M.J.R., Data Collection or Processing: J.S., R.S., M.J.R., Analysis or Interpretation: J.S., R.S., M.J.R., Literature Search: J.S., R.S., M.J.R., Writing: J.S., R.S., C.V., M.J.R.

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