

Case Report

Testicular torsion: A diagnosis not to be missed

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Abstract

A 25 year old male was seen in the outpatient with complaints of left testicular swelling and intermittent pain for 4 years, aggravated 8 months back in association with nausea and vomiting. There was no history of trauma, or fever and no lower urinary tract symptoms (LUTS) were present. After conservative management and resolution, the size of the testis reduced which was confirmed on ultrasound showing atrophy. His family physician reassured and advised him to take salicylic acid (Ascard 75mg).

Keywords: Testicular torsion, testicular atrophy, ultrasound testes.

Introduction

Torsion of the testis, or more correctly, torsion of the spermatic cord, is a surgical emergency because it causes strangulation of gonadal blood supply with subsequent testicular necrosis and atrophy. Acute scrotal swelling in children indicates torsion of the testis until proven otherwise. In approximately two thirds of patients, history and physical examination are sufficient to make an accurate diagnosis.¹

In this report, we present a case of a young male who had testicular torsion, which was not diagnosed at the time of presentation, even after repeated episodes and resulted in atrophy. We would also like to highlight the importance of clinical diagnosis and early referral in such cases.

Case Report

A 25 years old male presented in the urology outpatient with complaints of small left testis having history of sudden onset left testicular pain and swelling 8 months back. Following which he noticed decrease in the size of the left testis. He was seen by his family physician at that time, investigated and was reassured, started on ascard and ispaghul husk. He reported 3-4 similar episodes in the past 4 years, was prescribed analgesics and antibiotics. On examination, he was found to have small, non-tender left testis. He had ultrasound done which showed atrophic left testis. His urine was sterile and his semen analysis revealed total count > 130 mil/ml, with 80% motility (Normal values of semen parameters issued by WHO in 1992; count: 200 million/ml or more spermatozoa, motility: 50% or more

with forward progression). Patient came to us for a second opinion with concern of its impact as he was getting married in the near future. He was explained the need of removal of involved testis, fixation (orchidopexy) of the other testis and the possibility of delayed loss of testicular function of the normal side (in case the atrophic testis is not removed) due to the formation of antisperm antibodies, although the evidence for this is not strong.³

Discussion

Testicular torsion is described as the twisting of the spermatic cord resulting in acute pain and ischaemia. In 1976, a study from the United Kingdom reported the annual incidence of testicular torsion as 1 case per 4000 in males younger than 25 years.² This has a tendency to occur more frequently during adolescence and its cause is unknown. The most common signs and symptoms include red, swollen scrotum and acutely painful testicle, often in the absence of trauma. Nausea and vomiting are common.² In patients who have an inappropriately high attachment of the tunica vaginalis (normally attaches to lower end of the posterolateral surface of the testis and allows for little mobility within the scrotum), the testicle can rotate freely on the spermatic cord within the tunica vaginalis (intravaginal testicular torsion). This congenital anomaly, called the bell clapper deformity, results in the long axis of the testicle to become oriented transversely rather than cephalocaudal. This congenital abnormality is present in approximately 12% of males, 40% of which have the abnormality in the contralateral testicle also.⁴ Experimental evidence indicates that 720° torsion is required to compromise flow through the testicular artery and result in ischaemia. In the neonatal age group, the testicle in some cases is not descended completely into the scrotum. This mobility of the testicle predisposes it to torsion (extravaginal testicular torsion). Torsion may be categorized as complete, incomplete, or transient.

Adult testicular torsion is thought to be rare if not relatively unusual. The rarity could be an underestimation since there are many episodes of missed torsions and misdiagnosis with other conditions of acute scrotum despite the now widespread ultrasound availability.⁵

Acute scrotal pain is most commonly caused by

testicular torsion, torsion of the appendix testis, epididymitis and/or orchitis. Of these, only testicular torsion is an absolute surgical emergency as testicular salvage is inversely related to the duration of ischaemia.⁶ Physical examination techniques such as Prehn's sign (pain relieved when the testicle is elevated that occurs in orchitis) can be helpful in differentiating between epididymitis and testicular torsion, but emergent imaging with Doppler ultrasound seems to be the most helpful in confirming the diagnosis though it is operator dependent and inaccurate results may be obtained in the prepubertal patient with small testicular volume.² If the diagnosis is equivocal, radionuclide scan of the testicles can be helpful to assess blood flow and to differentiate torsion from other conditions. Scan results are abnormal in torsion when they demonstrate decreased uptake in the affected testicle. Radionuclide scans have a sensitivity of more than 90% but should only be ordered once urologic consultation has been completed. More recently, US of the acute scrotum has gained acceptance, particularly in adults. Attractive aspects of sonography include its ready availability, its ability to obtain detailed anatomic information about the testis and scrotum, sensitivity of 99% and the avoidance of radiation.⁶

The clinician may attempt to manually reduce/detort the torsion, but many need to be immediately referred to a urologist for a surgical exploration and if successful (i.e. confirmed by colour Doppler sonogram in a patient with complete resolution of symptoms),⁷ definitive surgical fixation as an urgent procedure is still mandatory. The acutely painful scrotum is a common urologic emergency.⁸ The primary objective of management is to avoid testicular loss. This requires a high index of clinical suspicion and prompt surgical intervention. Prepubertal unilateral

testicular torsion induces decreased spermatogenesis postpubertally. The result takes place in the bilateral testes.⁹ For a male with testicular torsion to save his testicle, he must recognize the symptoms of torsion, access health care, and have a timely surgical procedure. Unfortunately, male subjects may be hesitant to seek medical attention for conditions involving their genitals, even for torsion. To educate preadolescents about testicular disorders during health maintenance visits, health care professionals must be comfortable discussing problems involving the testicle. The message to patients should be that scrotal pain, especially severe pain, requires immediate evaluation. In fact, any male in the peripubertal age group or older with scrotal pain should be presumed to have torsion until proven otherwise.¹⁰

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