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**POST-TRAUMATIC TESTICULAR TORSION**

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**ABSTRACT**

*Torsion of the testis is the most common urological emergency and should be included in the differential diagnosis of scrotal trauma. Clinical suspicion of testicular torsion is a serious indication for prompt surgical exploration of post-traumatic acute scrotum. A case of post-traumatic testicular torsion, which resulted in orchiectomy, is presented and literature is reviewed.*

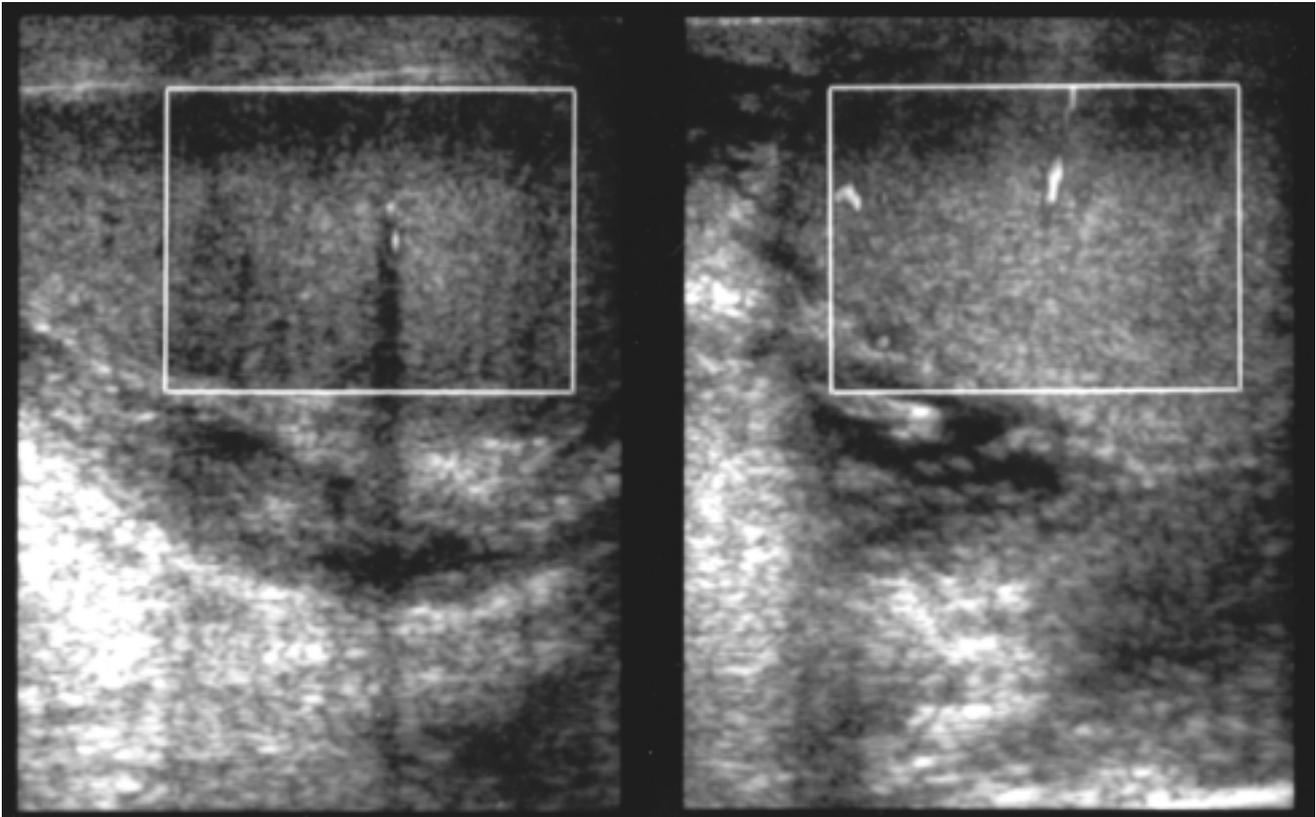
**Key words:** testis, torsion, trauma

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**THE CASE**

A 37-year-old male presented to the emergency room with the complaints of a swollen, painful left testis, nausea and left lower quadrant pain for approximately 18 hours after trauma to the testis against the edge of a chair. There was no medical history and general examination revealed a

temperature of 37.5 °C. Examination revealed the left hemiscrotum to be tender, erythematous and swollen, with an indistinct testis and epididymis. The contralateral testis was normal as well as the complete blood count and urinalysis. Ultrasonography revealed a 5 cm enlargement of the head of the left epididymis with mixed



**Picture 1.** Comparative Power-Doppler sonography sonographic findings of left and right hemiscrotum (respective figures), showing scant left testicular perfusion.

echotexture, minor extratesticular fluid, scrotal wall thickening and hypoechogenic left testis. Power-Doppler sonography showed scant left testicular perfusion and increased perfusion of the thickened left scrotum wall, in comparison with the right testis (Picture 1).

Surgical exploration of the scrotum revealed a 720-degree intravaginal torsion of the left testis, serosanguineous fluid in the vaginal sac and hematoma of the head of the left epididymis. The color of the testis was black and did not change after detorsion and application of warm saline soaks. Left orchiectomy and placement of a silicon prosthesis were performed. Final pathologic evaluation confirmed the operative findings of testicular torsion.

## DISCUSSION

Testicular torsion represents an urgent surgical problem; whereas it is usual to initially treat testicular trauma conservatively (1). Testicular torsion has been recognized as the most common urological emergency with an incidence of 1:160 by the age of 25 years, while in adults it is initially misdiagnosed as epididymitis in 20% of the cases (2,3). Trauma is an infrequently reported precipitant of testicular torsion, usually accounting for only 5 to 6% in most series, mostly affecting teenagers (4,5). The signs and symptoms of testicular torsion may easily be mistakenly attributed to preceding testicular trauma, if there was such an event (5). It is considered that testicular trauma produces torsion through induction of cremasteric muscle spasm in the presence of a high investment of the tunica vaginalis (6). Although a few cases of extravaginal traumatic torsion have been reported, post-traumatic torsion is usually described as intravaginal in nature (7,8).

Ultrasonography has emerged as the diagnostic imaging modality of choice in the evaluation of patients with scrotal trauma. In high clinical suspicion of testicular torsion, ultrasonography

and power color-flow Doppler sonography or isotope scrotography should be performed (9). If these diagnostic modalities do not provide a clear result, the patient should be explored surgically. Therefore, another indication for prompt surgical exploration of a post-traumatic acute scrotum is to help establish an early diagnosis of testicular torsion.

In conclusion, testicular torsion should be considered in cases of scrotal trauma. The inclusion of torsion in the differential diagnosis of post-traumatic acute scrotum is important in order to ensure appropriate management. Awareness of the entity and constant vigilance is required of clinicians in order to avoid a catastrophic delay in definitive treatment. The message that trauma can and not infrequently does precipitate torsion, needs to be reiterated. The failure to consider post-traumatic testicular torsion may have tragic consequences, as demonstrated in the case presented.

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