

A Case Report of Testicular Rupture

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Abstract: *Genitourinary trauma is a commonly encountered clinical scenario ,however testicular rupture is an uncommon entity. As clinical evaluation is often difficult , ultrasonography is the investigation of choice.*

Keywords: genitourinary trauma testicular rupture

1. Introduction

Testicular trauma is an uncommon traumatic injury. Clinical evaluation is often difficult due to marked scrotal pain and swelling, making sonography invaluable in assessment of testicular trauma. Prompt diagnosis is essential as early scrotal exploration is associated with improved salvage rates.

The aim of this case report is to document a unique case of testicular rupture.

2. Case Report

A 55-year-old male presented to emergency department with alleged history of blast injury (firecrackers) to scrotum. On examination laceration of about 4 x 2 0.5 cm was present on the inferior scrotal wall with diffuse enlargement of scrotum. Colour doppler ultrasonography of scrotum was done which showed diffuse scrotal wall oedema on the left side. Left scrotal sac appeared bulky and showed a large heteroechoic area within. The left testis appeared to be fragmented and showed minimal colour flow. The possibility of a testicular fracture /testicular rupture was raised

The patient was immediately taken for scrotal exploration. Large hematoma with tear in tunica albuginea was noted in the left testis. Vascularity was preserved. Hematoma was evacuated and left testis was repaired along with orchidopexy. Drain was placed and scrotum was closed in multiple layers

Patient was managed postoperatively with intravenous antibiotics, analgesics and other supportive measures.

3. Discussion

Scrotal and penile trauma is an uncommon traumatic injury. Even though there is a possibility of high-risk injury of testis due to extracorporeal location, the testis is relatively protected from damage by its anatomical location, mobility within the scrotum, tunica albuginea and the cremasteric muscle reflex.

Injuries to testis may be due to blunt injuries, penetrating injuries or iatrogenic injuries. Thermal injuries and degloving injuries are less common.

Several classification systems exist for trauma scoring but the most commonly used classification is the American association for the surgery of trauma (AAST) Injury scoring scale

Diagnostic ultrasound is the most common imaging technique used in the evaluation of scrotum. Doppler sonography has further expanded and improved the evaluation of scrotal trauma. Optimal results are obtained with a high frequency (14-18MHz) linear array transducer (1, 2)

When evaluating testicular integrity in settings of trauma, the primary aim is to assess the continuity of the tunica albuginea. Disruption of the tunica albuginea indicated testicular rupture. Tunical disruption associated with extrusion of seminiferous tubules is specific for rupture. Testicular rupture is differentiated from testicular fracture, in that the latter is not associated with disruption of tunica albuginea. Additionally, areas of altered testicular echotexture and haematocoele formation should be assessed

Colour doppler imaging is useful as rupture of testis is almost always associated with loss of blood supply and disruption of the tunica vaginalis. (2, 3)

In cases of scrotal trauma, early operative exploration and repair is essential. Early exploration leads to decreased rates of delayed orchidectomy and quicker resolution of pain and bleeding. (2, 3)

In scrotal exploration, tunica vaginalis is opened and hematoma is evacuated. The testis is examined for viability and the non-viable tissue is debrided/ excised. Defects in the tunica albuginea is closed with either small absorbable sutures or a flap/graft of tunica vaginalis

Written informed patient consent for publication has been obtained.

4. Conclusion

This report was of a rare case of testicular rupture. The case study aims to highlight the importance of sonography in evaluation of testicular trauma and how prompt diagnosis and surgical exploration can increase salvage rates

Figure List

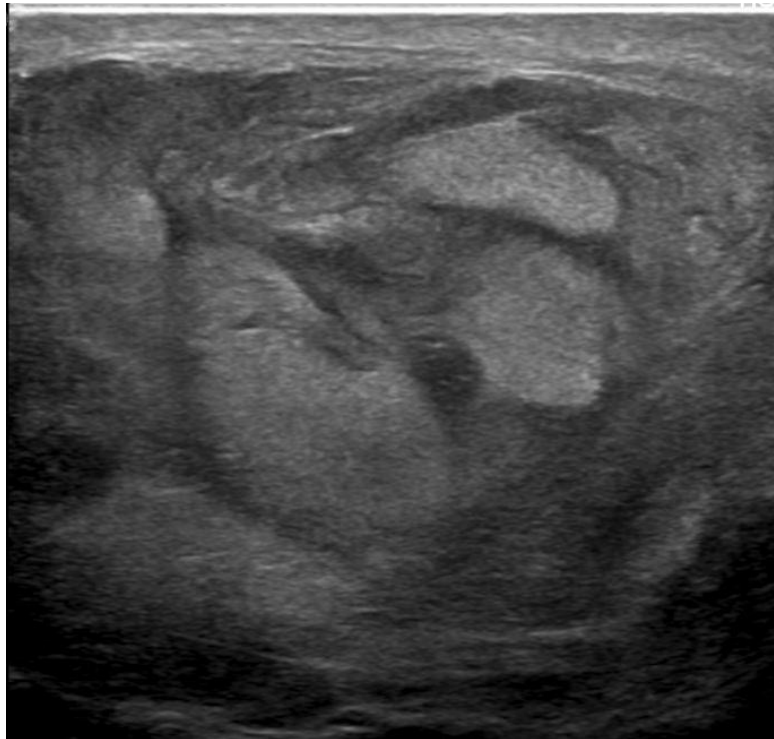


Figure 1: Fragmentation of Testis with Disruption of Tunica Albuginea

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Figure 2: Diffuse Scrotal Wall Edema Noted

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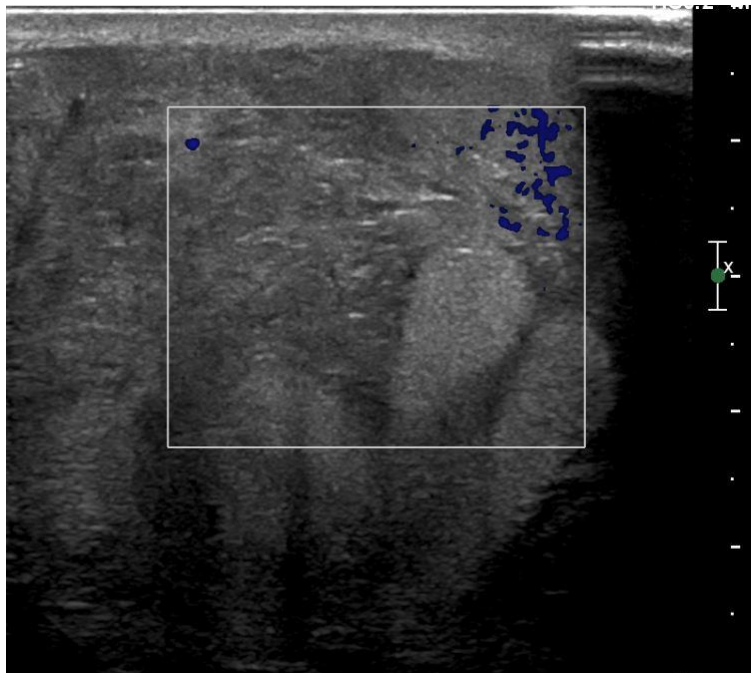


Figure 3: Colour Doppler Shows No Vascularity

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