



## A Case of Testicular Rupture – A Case Report

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### Abstract

**Introduction:** *The classification of testicular trauma is based on etiology into blunt, penetrating and degloving injuries. Blunt testicular trauma is the major cause which occurs due to assault, sports injuries and road traffic accidents typically affecting adult males aged 15–40 years<sup>[1]</sup>. Most of the blunt trauma manifest as unilateral testicular injury<sup>[2]</sup>.*

**Case Report:** *A 26 year old adult male presented with complaints of pain and swelling over right side scrotum for 2 days after sustaining trauma with a cricket ball. The patient had no history of fever, vomiting or any urinary discomfort. The patient's general physical examination was normal. Vitals were stable. Local examination of the external genitalia revealed tense and tender swelling of the right side scrotum. Both the testes and penis were normal. USG of the scrotum revealed hematoma collected over the right side scrotum. A midline raphe incision was made over the right side scrotum for about 5cm and layers deepened. Tunica vaginalis was opened and about 100ml of clots were evacuated. There was a tear in the tunica albuginea exposing the seminiferous tubules. The tubules were placed back inside and tunica albuginea was closed with vicryl.*

**Discussion:** *Most of the testicular ruptures are diagnosed secondary to sports related injuries<sup>[3]</sup> and RTAs. A delay in care may lead to impaired fertility, hypogonadism and testicular loss<sup>[4]</sup>. In the case of testicular rupture, when exploration is done within 72 hours cure rates are peaking upto 90%. Beyond 72 hours, salvage rates fall drastically to approximately 45%<sup>[5]</sup>.*

**Conclusion:** *Early diagnosis and if needed, scrotal exploration are very much necessary for treating testicular injuries. Testicular trauma should be treated appropriately, as timely intervention may prevent the need of orchidectomy.*

**Keywords:** *Blunt trauma, Testicular injury, Testicular rupture, Testicular failure, Orchidectomy.*

### Introduction

Testicular trauma is more common associated injury in emergency room. The classification of testicular trauma is based on etiology into blunt, penetrating and degloving injuries. Blunt testicular trauma is the major cause which occurs due to assault, sports injuries and road traffic

accidents typically affecting adult males aged 15–40 years<sup>[1]</sup>. RTAs involving bicycles and 2 wheelers lead to 9 and 17% of the blunt trauma cases. A study revealed that 98.5% of blunt trauma resulted in unilateral testicular injury<sup>[2]</sup>. Reports also revealed relationship between testicular tumors and testicular rupture<sup>[7]</sup>. This

case report reveals the need of early assessment and diagnosis to treat acute testicular injuries to prevent orchidectomy.

### Case Report

A 26 year old adult male presented to the emergency room with complaints of pain and swelling over right side scrotum for 2 days. The patient sustained a trauma with a cricket ball while playing 2 days before he presented. The patient had no history of fever, vomiting or any urinary discomfort. On general examination, the patient had no fever or any lymphadenopathy. The patient's general physical examination was normal. Vitals were stable and other systemic examination was found to be normal. Local examination of the external genitalia revealed tense swelling of the right side scrotum. There was no warmth in the swelling and swelling appeared to be tender. Other side of the scrotum was normal. Both the testes were palpable and normal. Penis appeared normal. Necessary routine blood investigations were taken and it found to be normal. The patient was sent to radiology for ultrasonography of the scrotum. USG revealed hematoma collected over the right side scrotum. Other side was normal and both the testes appeared normal. Semen analysis revealed normal sperm count and morphology. Consent was obtained for elective exploration of the scrotum and orchidectomy.



**Fig 1:** Right sided scrotal swelling



**Fig 2:** Hematoma inside tunica vaginalis

The patient was prepared for surgery after getting anesthetic fitness. A midline raphe incision was made over the right side scrotum for about 5cm and layers deepened. Tunica vaginalis was opened and about 100ml of clots were evacuated.



**Fig 3:** Breach in tunica albuginea



**Fig 4:** Primary closure of tunica

On closer examination of the testis, there was a tear noted in the tunica albuginea exposing the seminiferous tubules. The tubules were placed back inside and tunica albuginea was closed with vicryl sutures. Hemostasis was attained and tunica

vaginalis was closed. A corrugated rubber drain was placed and right hemiscrotum was closed. Scrotal support was placed. Post operatively the patient was treated with intravenous antibiotic and analgesic for 3 days. The patient recovered well and the drain was removed on 2<sup>nd</sup> post-operative day. The patient was advised to continue having scrotal support. The condition improved and the patient was discharged on post-operative day 4. Post-operatively ultrasonogram was done and it revealed viable testis on the right side. Hence testicular failure was prevented.

### Discussion

A testicular trauma is always catastrophic unless it is treated early. Most common cause of testicular rupture is sports injuries<sup>[3]</sup>, mainly groin associated injuries. The next most common cause is road traffic accidents. Straddle injuries and injuries due to fall follow in the list<sup>[6]</sup>. Hematoceles appear as hyperechogenic extratesticular fluid<sup>[5, 8]</sup>. Surgical intervention is recommended for large (>5 cm) or expanding hematoceles. Otherwise, conservative management is sufficient<sup>[9]</sup>. Testicular fracture is identified by a linear band that is having low echogenicity dividing the testicular parenchyma inside the intact tunica albuginea. If vascularity is normal, the fractures are treated conservatively. If the segment is avascular, emergency exploration is needed<sup>[8 - 10]</sup>. Testicular rupture is diagnosed by loss of testicular contour. The diagnosis warrants exploration to preserve testicular function<sup>[8, 11 - 13]</sup>. Also, a study done by Lunawat et al in 2014 revealed 5 cases of rupture being linked to testicular tumors<sup>[7]</sup>. In 2 of these 5 cases, trivial trauma preceded the disease. This leads to a discussion whether presence of testicular malignancy reduces the strength of the testis leading to testicular rupture following a blunt trauma.

### Conclusion

Prompt diagnosis and early scrotal exploration are very much necessary for treating testicular

injuries. In case of inconclusive findings and radiological evidences, exploration is highly suggestive to avoid consequential loss of function. Testicular trauma should be treated appropriately as timely intervention may prevent the need of orchidectomy.

**Source:** None

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