

## Delayed Presentation of Testicular Rupture: A Case Report

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**Abstract:** Testicular ruptures are mostly related to blunt injuries most of the time, while possibility of malignancies and chronic epididymo-orchitis should be ruled out in long standing ones. Though mostly testicular traumas present as an emergency, delayed presentation and diagnosis has proved to have higher rates of morbidity. Early diagnosis and definitive treatment are the key to restore the quality of life without any impairment. Conservative management may be attempted when the trauma may be trivial or in absence of haematoceles. Surgical exploration is the preferred modality of treatment when substantiated with a strong clinical suspicion of testicular rupture in spite of deficient imaging evidence.

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### I. Introduction

Due to its anatomical location and mobility scrotal traumas are as rare as less than 1% out of all the traumas.<sup>1</sup>The most common source of scrotal trauma is blunt trauma through motorcycles or bicycles and sport injuries.<sup>2</sup> The young male population of the 15-40 years age has been noted to have the highest incidence. Testicular rupture, though rare, requires urgent exploration and correction- as it involves breach in the tunica albuginea with extrusion of the testicular contents.<sup>3,4</sup>Testicular rupture is a relatively ischaemic state when weighed against torsion testis, which involves a compromised arterial supply. Thus damages include testicular necrosis, abscess and loss of spermatogenesis.<sup>5,6</sup> Definitive diagnosis of testicular rupture should hence be explored and repaired rather than opting for a wait and watch policy.<sup>1,3</sup>

### II. Case Report

A 59year old male patient presented with swelling in the left groin since 3days, insidious in onset, started at the base of the scrotum and then gradually ascended up to the inguinal region. It was associated with throbbing type of pain and tenderness. Patient also gave history of mild grade fever in the evening hours mostly, on and off. Though primary suspicion was in favour of a complete inguino-scrotal hernia, clinical examination didn't give any positive findings as there was no cough impulse and it was non reducible. Trans-illumination test also yielded negative. On eliciting the retrospective history, patient gave history of trauma to the scrotum 7years back when he fell from a bicycle. He developed pain and swelling over the left testis after three days, for which he consulted locally and was given pain medications and was not evaluated further.



The pain was relieved with the medications but the scrotal swelling persisted over the years and had remained non progressive. He was evaluated and worked up to find all blood parameters within normal limits. Imaging studies like ultrasonography was performed and that showed evidence of localised collection in the left testis suggesting the possibility hematocele or pyocele.

Patient was taken up for scrotal exploration and proceed. Consent was taken for left orchietomy, (which was to be decided on table). Intraoperatively, left testis was found to be necrosed. A large cystic area of about 6.5X5X2cm with 80-100ml of pus was noted. No evidence of pus in the inguinal region. Cord structures appeared inflamed.it was decided to go ahead with left orchidectomy and the specimen was sent for histopathological evaluation. A corrugated rubber drain was placed which had minimal collection in the postoperative period. Histopathology was consistent with clinical diagnosis of pyocele. Patient improved and was discharged on post-operative day 8.



### III. Discussion

Blunt trauma to the scrotum is normally quite rare due to its anatomical location and mobility and elasticity of the scrotum.<sup>1</sup> Majority of the testicular blunt traumas can be traced directly to motor vehicle accidents which account for about 9-17% of which 98.5% resulted in unilateral testicular injury.<sup>7</sup> Another cause of concern is that testicular tumours that may present as delayed rupture, though reported cases are only a few as five.<sup>8</sup>

Testicular rupture involves a breach in the tunica albuginea causing an extrusion of the testicular contents. The breach in the usually tough tunica albuginea occurs as a result of a forceful compression brought about by a direct blow to the testis crushing it between the pubic bone and the impacting object with subsequent intra-parenchymal bleeding.<sup>9</sup>

Clinical diagnosis can be made with a classical history of pain, nausea, vomiting and at times fainting attacks. Examination may prove severe tenderness and swelling of the hemi-scrotum which may or may not be associated with ecchymosis. In a massive haematoma, it might be quite difficult to feel for the testis, also in inguinal dislocation.<sup>10,11</sup> High resolution ultrasonography is the investigation of choice to identify a rupture. Other imaging modalities like colour Doppler, duplex scan, CT/MRI can be used to assess the extent of damage, viability and perfusion of the organ.<sup>1,2</sup> In event of high clinical suspicion of a rupture with poor imaging evidence to substantiate, surgical exploration is the modality of choice.<sup>11,12</sup>

Conservative management is indicated in insignificant traumas without features of haematocele or hematomas and is managed with ice packs, elevation of the affected testis-helps in reducing pain and swelling, -non steroidal anti-inflammatory and analgesic agents. In blunt traumas with haematoceles of size less than three times the normal testis, wait and watch is the protocol.<sup>13,14</sup> Apart from these, all is an indication for surgical exploration.<sup>15</sup>

Delayed surgical intervention for correction can lead to high rates of infection-even ascend to cause funiculitis-, abscess, Fournier's gangrene, impaired hormonal states and high orchietomy rates.<sup>1</sup> In cases of delayed presentation such as the one discussed above possibility of testicular malignancies has to be borne in mind due to the long standing state and has to be evaluated through estimating alfa-fetoprotein, human chorionic gonadotrophin and lactate dehydrogenase levels.

### IV. Conclusion

Testicular blunt traumas, considered to be the most severe of all testicular injuries, should be considered as an emergency and managed as the need of the hour. Early diagnosis and exploration if directed through substantiating clinical diagnosis are the key to restoring the normal status. Ultrasonography is the imaging modality giving relevant information about the site and extent of injury. Delayed presentation and diagnosis can lead to complications like infections, abscess and may terminate as orchietomy. Goal in a case of testicular trauma is to prevent such mishaps and to restore the anatomy and physiology at the earliest. Careful clinical examination and evaluation are the guide to accurate treatment.

#### Consent

Informed written consent was obtained from the patient based on whom the report is about.

#### Conflict of interests

The authors declare that they have no conflict of interest.

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