# Traumatic dislocation of testis into penile shaft: a rare consequence of blunt scrotal injury

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## Abstract

**Background:** A 34 years old Muslim fisherman reported to surgical outpatient with a history of absent left testicle for 4 months and swelling of the shaft of the penis for same duration. He noticed the swelling after few days of blunt trauma over scrotum and perineal area during working. Swelling was initially painful but pain subsides within 7 days. Patient also complains of difficulty in sexual intercourse which was normal before. He was treated initially by local doctor but painless swelling continued with no further enlargement of swelling. On examination there was lump in shaft of the penis which is superficial. Swelling was globular in shape, rounded, slightly mobile and non-reducible. Swelling is non translucent and non-pulsatile. Scrotal examination reveals absent left testis. On auscultation bruit is absent. Initially lump is diagnosed as Testicular herniation in penile shaft. Differential diagnosis were Lipoma of the Penis and Arterio-venous malformation of penile vessels. Ultrasound examination of the swelling reveals testis like structure in penile shaft. After final diagnosis operative repositioning of the testis decided. Under Spinal Anesthesia with scrotal incision extending to penile shaft testis is identified above the Bucks fascia of the shaft of the penis. (Left side). Then testis is carefully dissected out. Scarring noted around the testis. Testis then repositioned in scrotum and Orchidopexy done. Skin closed primarily. Postoperative recovery was uneventful. After 30 days post operatively patient get backs to his normal sexual life.

Key words: Traumatic dislocation, penile shaft injury, blunt scrotal injury

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## Introduction

Traumatic dislocation of testis (TDT) is a rare clinical presentation that occurs most commonly as a result of blunt scrotal injury.<sup>1</sup> TDT may be a singular event<sup>2</sup> or associated with blunt abdominopelvic trauma.<sup>3</sup> Ultrasound (U/S), color-flow Doppler U/S, magnetic resonance imaging (MRI) or computed tomography (CT) are the main diagnostic tools of this condition.<sup>4</sup> It is immensely important to prevent any delay in diagnosis as this can lead to loss of spermatogenic function of the testis and increased risk of orchiectomy.<sup>1</sup> We report a case of unilateral traumatic dislocation of testis into penile shaft following blunt scrotal injury.

## **Case Presentation:**

A 34 years old Muslim fisherman reported to surgical outpatient with a history of absent left testicle

for 4 months and swelling of the shaft of the penis for same duration. He noticed the swelling after few days of blunt trauma over scrotum and perineal area during working. Swelling was initially painful but pain subsides within 7 days. Patient also complains

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Major Dr.Sayed Imran Hossain e-mail : dr.imran.hossain@gmail.com of difficulty in sexual intercourse which was normal before. He was treated initially by local doctor but painless swelling continued with no further enlargement of swelling. On examination there was lump in shaft of the penis which is superficial. Swelling was globular in shape, rounded, slightly mobile and non-reducible. Swelling is non translucent and non-pulsatile. Scrotal examination reveals absent left testis. On auscultation bruit is absent. Initially lump is diagnosed as Testicular herniation in penile shaft. Differential diagnosis were Lipoma of the Penis and Arterio-venous malformation of penile vessels. Ultrasound examination of the swelling reveals testis like structure in penile shaft. After final diagnosis operative repositioning of the testis decided. Under Spinal Anesthesia with scrotal incision extending to penile shaft testis is identified above the Bucks fascia of the shaft of the penis. (Left side). Then testis is carefully dissected out. Scarring noted around the testis. Testis then repositioned in scrotum and Orchidopexy done. Skin closed primarily. Postoperative recovery was uneventful. After 30 days post operatively patient get backs to his normal sexual life.

#### **Discussion:**

Blunt scrotal trauma is not an uncommon injury sustained in young men. It can be a cause of various testicular injuries, including minor contusions, hematoma, ruptured tunica and even completely shattered testis. Testicular dislocation is a rare consequence, although it is difficult to determine the actual incidence because it is likely

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to be underreported.<sup>2</sup>

Traumatic testicular dislocation is defined as displacement of a normally located testis out of the



Figure 1: Preoperative Figure 2: Per operative picture Picture of Penile Lump

scrotal sac. It was first described by Claubry in 1809.<sup>4</sup> Most cases result from straddle injuries during motorcycle collision accidents when the rider is propelled forward with traumatic impact of the perineum and scrotum over the fuel tank or handlebar. Dislocation of the testis is commonly unilateral. However, it is bilateral in approximately 30% of patients.<sup>4</sup> The most common site of dislocation is the superficial inguinal region, which accounts for 50% of cases and other possible locations of a dislocated testis include pubic (18%), canalicular (8%), penile (8%), intraabdominal (6%), perineal (4%) and crural (2%) regions.<sup>5</sup> The most common factor contributing to the dislocation of testis is a spasm of the cremasteric muscle, which can forcefully retract the testis out of the hemiscrotal sac.<sup>1</sup> Clinical assessment of the dislocation often begins with a physical examination. Ultrasonography is traditionally the primary investigation used to evaluate testicular trauma. Hematoceles and hematomas are common injuries that accompany testicular dislocation, and color Doppler imaging can help assess the blood flow of the testis and exclude coexisting conditions such as testicular rupture, torsion, or epididymal avulsion.<sup>6,7</sup> In difficult cases, computed tomography may be needed to locate the testis. Manual reduction is the initial treatment of choice for a normal testicle without coexisting injuries, but is reportedly successful in only 15% of patients because of a small size defect in the spermatic cord layers and edema of the scrotal wall after a trauma.8 Kochakarm et al<sup>9</sup> reviewed 36 patients who had experienced traumatic testicular dislocation from 1975 to 1997. A closed reduction under general anesthesia was successful in only 14 patients.<sup>9</sup> Delayed reduction of a dislocated testis in postpubertal men has been reported to impair spermatogenesis, which is usually detected after 4 months of dislocation.<sup>10</sup> An improvement in spermatogenesis has been reported after

orchidopexy.<sup>10,11</sup> Surgical exploration and orchidopexy should be performed early to evacuate the hematoma, repair lacerated tissue, and fix the testicle after repositioning it. In our patient, surgical exploration was performed after confirmation of diagnosis and orchidopexy was done.

Successful reduction of the dislocated testis back to its normal anatomic position is necessary for immediate pain relief and to avoid irreversible testicular injury. In our experience, the results of surgical repair were encouraging and the patient had a fast recovery and minimal morbidity after the procedure.

### **Conclusion:**

Traumatic dislocation of the testis is a rare and easily overlooked complication after blunt trauma which carries with it the risks of infertility and chronic discomfort. A complete physical examination is strongly recommended to identify it. A Doppler ultrasound is usually the first test used to locate and evaluate the testis. Manual reduction can be an initial intervention, but it has a low success rate. Early surgical intervention is essential to locate the displaced testis, manage coexisting injuries, and place the dislocated testis back to its normal anatomic position to relieve pain and avoid irreversible testicular injury.

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