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**Case Report**

# Traumatic dislocation of the testis

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## ABSTRACT

Traumatic dislocation of testis is an uncommon condition and usually occurs after direct impact on the scrotum. The diagnosis may be overlooked because of associated major injuries or due to lack of awareness of its possible occurrence. We report a case of traumatic displacement of testis in a young man presented to the emergency following polytrauma. The patient underwent a successful surgical exploration without loss of testicular function. A high index of suspicion is therefore necessary to diagnose traumatic testicular displacement.

**Keywords:** Testis, Trauma, Dislocation, Inguinal

## INTRODUCTION

Traumatic dislocation of the testis also known as the "Fuel Tank injury" is a rare occurrence where one or both the testis is dislocated to a position other than the scrotum.[1] It occurs following a forceful direct impact on the scrotum. Diagnosis of this disease is a challenge, usually overlooked due to associated injuries. Prompt treatment is required to maintain the normal spermatogenesis of the displaced testis.

## CASE REPORT

A 28 year old male motorcyclist presented to the emergency department, 1 hour after a road traffic accident. The patient sustained a blunt scrotal trauma following a high velocity head on collision with a car where he was knocked against the fuel tank and thrown over the motorcycle. At presentation the patient was hemodynamically stable, conscious and oriented. He complained of excruciating, intractable pain over the pubis and right inguinal region. On physical examination there was an empty right hemiscrotum, left testis palpable. An ovoid shaped tender, soft mass was palpable in the right inguinal region. Abdominal ultrasound confirmed the presence of right testis in the superficial inguinal pouch with intact vascularity. X-ray pelvis revealed a pubic symphysis diastasis. Immediate surgical exploration with right sided orchidopexy was done. The patient recovered well post operatively with immediate relief of inguinal pain. A follow up after 2 weeks for 2 months showed both the testicles in the anatomical position.

**Figure 1: Examination findings on arrival.**

**Figure 2: Testis dislocated to the inguinal canal.**

**Figure 3: Intraoperative dissection for orchidopexy.**

## DISCUSSION

Traumatic testicular dislocation is defined as displacement of a normally located testis out of the scrotal sac. It was first described by Claubry in 1809.[2] The main mechanism of dislocation is a direct force propelling the testis out of the scrotum, after rupture of the fasciae (external, cremasteric, and internal) of the spermatic cord.[3]

It commonly occurs following motorcycle collision due to the impact of the fuel tank. The shape of fuel tank wedges the groin area, forcibly displacing each testis into supero-lateral direction.[4]

The most common site of dislocation is the superficial inguinal pouch (almost 50% of all cases) (2). Other less common sites are: pubic (18%), penile (8%), canalicular (8%), abdominal (6%), perineal (4%), acetabular (4%), and crural (2%).[5] The clinical history and the physical examination plays an important role in the investigation.

On physical examination, a tender mass with displaced testis in conjunction with an empty hemiscrotum in a patient with no history of orchidectomy or cryptorchidism helps to diagnose this condition.[3] However, the diagnosis of traumatic dislocation may be initially overlooked because of the coexistence of other severe injuries.[6] The primary investigation to evaluate testicular trauma is an ultrasonograhy with colour Doppler. Colour Doppler helps to assess the blood flow to the testis. Abdominal and pelvic CT scans are helpful in the cases of intra-abdominal dislocation.[3]

The initial treatment of choice is manual reduction without co-existing injuries, but have been reported successful in only 15% of the cases.[3] Surgical exploration and orchidopexy is the treatment of choice. Tai et al postulate that surgical exploration of inguinal and scrotal regions has advantages over manual reduction because it can identify the dislocated testicle and treat coexistent injuries.[7] Recovery of spermatogenesis has been reported in cases undergoing orchidopexy. Also, surgery has fast recovery, immediate pain relief, and minimal morbidity.[7]

Complications depend on the compromise of blood supply of the testis and its duration of stay outside the scrotum which include torsion, testicular ischemia, and diffuse atrophy of seminiferous tubules.[8] Early diagnosis and treatment are important to preserve testicular function and to avoid the risk of malignant transformation.

## CONCLUSION

Traumatic dislocation of the testis is an uncommon condition. A meticulous evaluation of trauma patients must be made for early diagnosis and treatment of such cases to prevent testis from becoming non functional.

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