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Case Report

A rare case of testicular dislocation with inguinal hernia as a delayed presentation after scrotal trauma

Sanjana Kumar*, Jainendra K. Arora, Ajay Kumar

Department of General Surgery, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India

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***Correspondence:**
Dr. Sanjana Kumar,
E-mail: sanjanabrook@gmail.com

ABSTRACT

Testis can be damaged either by blunt or penetrating trauma. Traumatic dislocation of testis is rare sequelae of scrotal trauma. Patients usually present at the time of injury and diagnosis is usually made on emergent basis. However, delayed or missed diagnosis may occur as scrotal injury may be overlooked in the presence of other associated injuries or due to lack of awareness of its possible occurrence. In this article, we report a case of 60 years old gentleman who presented with inguinal hernia with empty left hemiscrotum with history of blunt injury to scrotum 15 years back. The peculiarity of case lies in the fact that the dislocation of testis was diagnosed 15 years after trauma and the displaced testis was found to be atrophic.

Keywords: Atrophic testis, Inguinal hernia, Traumatic dislocation

INTRODUCTION

Of all genito-urinary injuries, one-third to two-thirds involve the external genitalia and is much more common in males - due to anatomical differences and increased frequency of road traffic accidents, physical sports, violent crime, and war-fighting.[1] Approximately, 80% is blunt trauma and 20% is due to penetrating injuries.[1] Blunt scrotal trauma may result in testicular dislocation, haematocele, testicular rupture and/ or scrotal hematoma.[1,2] Traumatic dislocation of testis is a rare complication of scrotal trauma.[3] It is commonly under diagnosed because of its rare incidence and low suspicion.[3] Patient may present late and therefore, diagnosis may be delayed. In most of these cases, testis is usually found to be well developed in post-pubertal men. Such cases only require an orchidopexy if testis is viable. The treatment can be done by manual reduction, but most cases need surgical correction. However, if found to be atrophic, it requires excision with correction of associated abnormalities.[4] Delayed correction of traumatic testicular dislocation may result in infertility due to elevated temperature exposure leading to reduced spermatids, spermatogonia and relatively increased sertoli cells.[3]

CASE REPORT

A 60 years old married gentleman presented to surgical OPD with complaint of painless swelling in left inguinal region noticed 1 month back. Past history was significant of scrotal trauma with a cricket bat 15 years back for which he was managed at another hospital. There was no history suggestive of retractile testis.

On examination, a nontender swelling of size 3×5 cm was present in the left inguinal region with a palpable cough impulse. The left testis was not palpable in the scrotum as well as in the inguinal region. The left hemi-scrotum was well developed. Right sided testis was normal. Ultrasonography of left inguino-scrotal region was suggestive of a left sided reducible, indirect inguinal hernia with omentum as content. Left testis was not

visualized in the left hemi-scrotum as well as in left inguinal region.

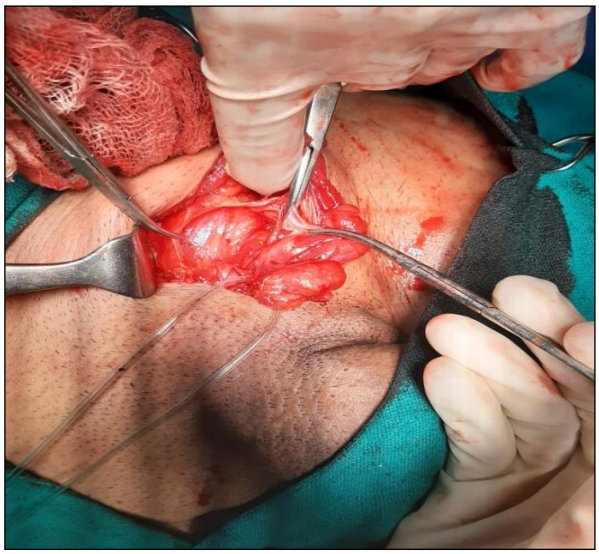

Figure 1: Atropic testis present near pubic tubercle in the superficial inguinal pouch. External oblique aponeurosis incised.

Figure 2: The swelling (atrophic testis) found to in continuity with spermatic cord.

Patient was explored electively with an inguino-scrotal incision. On exploration, after opening the fascia of scarpa, there was a visible swelling near pubic tubercle which was initially suspected to be hernia. The superficial inguinal ring was found to be patulous. Upon lateral exploration, external oblique aponeurosis was found and opened up. The spermatic cord was in continuation with the swelling; hence it was diagnosed to be atrophic testis present in the superficial inguinal pouch. After obtaining appropriate consent of patient, testis was dissected out carefully with high ligation of spermatic cord and sent for histopathological examination. A hernial sac was found adhered to the spermatic cord. Lichtenstein tension free mesh hernioplasty was done. The incision was closed in layers.

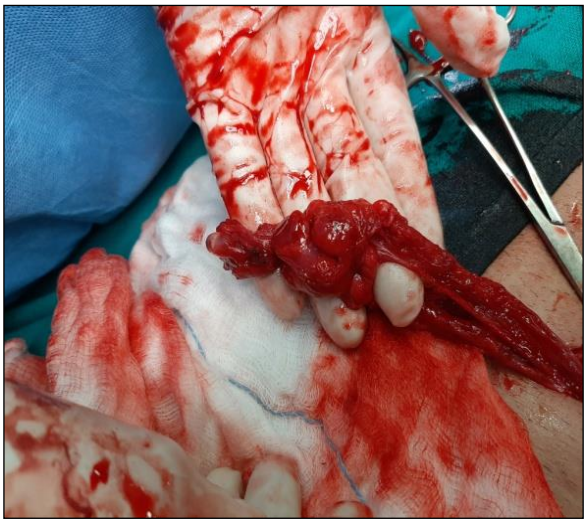

Figure 3: Spermatic cord containing atrophic testis after dissection of hernia sac.

Figure 4: Atrophic testis.

The post-operative period was uneventful, and patient was discharged on second post-operative. On histopathological examination, sections examined showed spermatic cord with epididymis with areas of congestion with absence of seminiferous tubules suggesting an atrophic testis.

DISCUSSION

Testicular dislocation is an uncommon complication seen after scrotal trauma.[5] it was first described by Claubry et al, in 1809.[6] Straddle injuries sustained in a motorcycle or bicycle collision is the most common mechanism implicated resulting in blunt scrotal injury.[4] However,

other uncommon mechanisms of injury have also been reported such as direct impact by cricket-ball, other high-impact sports such as football and ice-hockey, direct kick, fall from height.[7] Patient suffered a blunt injury to scrotum from a cricket bat. Dislocation of testis is commonly unilateral.[8,9] However, bilateral dislocation is seen in approximately 30% of patients.[8,9] Superficial inguinal pouch is the most common location of displaced testis, seen in nearly 50% of patients.[5,8] Other sites reported are pubic, penile, perineal, abdominal, acetabular and crural region.[5] The cremasteric reflex plays a powerful role in the mechanism of dislocation.[3] A widely opened external inguinal ring, an indirect inguinal hernia or an atrophic testis may be a predisposing factor for traumatic dislocation of testes.[5]

As initial management, manual reduction can be attempted but it is successful in only 15% of cases.[8] A surgical exploration is mandatory to identify the dislocated testicle. Surgical exploration of the inguinal and scrotal regions has advantages in its ability to identify the dislocated testicle and treat coexisting injuries.[5] A normal appearing testis is reduced back into scrotal sac and fixed to the dartos muscle i.e., orchidopexy. But presence of an atrophic testis at abnormal location mandates excision. Fertility may be affected, and a heightened risk of testicular malignancy can occur if the testicle is not reduced for a prolonged period.[10]

CONCLUSION

Although traumatic testicular dislocation is a rare clinical entity, with timely correct diagnosis and proper management, the prognosis is excellent. Knowledge about its possible occurrence among surgeons and a thorough clinical examination can prevent a delay in diagnosis when the patient presents at the time of initial trauma. Diagnosis if delayed, can lead to irreversible testicular damage.

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REFERENCES

1. Summerton DJ, Djakovic N, Kitrey ND, Kuehhas FE, Lumen N, Serfetinides E, et al. Guidelines on urological trauma. Eur Urol. 2012;62(4):628-39.
2. Ian Eeardley. Testis and Scrotum. Bailey and Love's Short Practice of Surgery. 27th ed. CRC Press; 2018: 1497-1512.
3. Vasudeva P, Dalela D, Singh D, Goel A. Traumatic testicular dislocation: A reminder for the unwary. J Emerg, Trauma Shock. 2010;3(4):418.
4. Carvalho NM, Marques AC, Souza IT, Soares VG, Nascimento FG, Pinto LM, et al. Bilateral Traumatic Testicular Dislocation. Case Rep Urol. 2018;2018.
5. Tai YS, Chen YS, Tsai PK, Wong WJ. Traumatic testicular dislocation: A rare occurrence of blunt scrotal injury. Urol Sci. 2014;25(4):158-60.
6. Claubry E. Observation on a sudden retrocession of the two testicles in the abdomen, following a violent compression of the lower part of the abdominal wall by a cartwheel. J Gen Med Chir Pharmacol. 1818;64:325.
7. Schwartz SL, Faerber GJ. Dislocation of the testis as a delayed presentation of scrotal trauma. Urology. 1994;43(5):743-5.
8. Bromberg W, Wong C, Kurek S, Salim A. Traumatic bilateral testicular dislocation. J Trauma Acute Care Surg. 2003;54(5):1009-11.
9. D'souza V, Thomas DA, Vinod J, Diaz E. Traumatic superficial subcutaneous testicular dislocation. Eurorad. 2012; case 10256:1563-4086.
10. Zavras N, Siatelis A, Misiakos E, Bagias G, Papachristos V, Machairas A. Testicular dislocation after scrotal trauma: a case report and brief literature review. Urology Case Rep. 2014;2(3):101-4.

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