



INTRIGUING CASES OF TRAUMA INDUCED TESTICULAR TORSION

Dr. Siddharth Mahender*

MBBS, Post graduate resident(3rd year), Department of general surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai, India * Corresponding Author

Dr. Akshaya Gunasekar

MBBS, Post graduate resident(2nd year), Department of general surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai, India

Dr. Swaminathan Ganesan

MBBS, MS, Assistant professor, Department of general surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai, India

Prof Ravishankar Sundaram

MBBS, MS. Head of the department, Department of general surgery, Sree Balaji Medical College and Hospital, Chrompet, Chennai, India

ABSTRACT Here are two different presentations of testicular torsion following blunt injury scrotum. Although testicular torsion following blunt injury scrotum is rare, incidence of 4-8% in reported studies, these two cases presented to the same institution within a span of 4 months. We have discussed the differences in the presentation and also how both cases were found to be non-salvageable. Both the patients were in their adolescents, and both were late presentations. The first patient's signs and symptoms were not proportionate to classical case of torsion and attributed to the trauma of the preceding event, hence torsion was missed. He also presented twice over a span of 3 days which shows that he had multiple episodes of torsion and spontaneous detorsion. His final presentation to us was late at the end of 3 days and testis could not be salvaged. The second patient on the other hand presented on the same day. But it was delayed[>12hrs] as the symptoms were attributed to trauma and hence managed conservatively outside. Later on with the worsening of symptoms and serial ultrasound, we found it was a case of torsion and explored on the night. But the testis was unsalvageable like the previous case.

KEYWORDS : Torsion; Trauma; Testicular Torsion; Blunt; Injury; Scrotum

INTRODUCTION:

The incidence of testicular torsion has been rising[1-3] but this has been mirrored by a rise in the testicular salvage rate.[1]Barker and Raper in 1964 reviewed the literature and found the immediate testicular salvage rate to be 10% and reported a salvage rate of 29% in their own series.[1] Reports in the 1970s and 1980s, taking delayed testicular atrophy into account, reported testicular salvage rates from 42-79%.This improvement was attributed to an increasing awareness of the condition among the general practitioners and hospital doctors, leading to an increased and an earlier diagnosis.[1]

CASE REPORT :

scenario one-13 year old boy presented to the surgical OPD with complaints of swelling and pain over the left hemiscrotum following accidental fall from the school steps, sustaining injury to the left hemiscrotum, which happened 3 days prior. On the day of the injury his pain was mild and subsided with analgesics. The following day he developed pain again and ultrasound was done which showed features of a small testicular hematoma with normal vascularity and the boy was advised conservative management. Later the next day his pain was aggravated and swelling increased in size. He was brought to the surgical opd and on examination left hemiscrotum was more prominent than right, and the scrotal skin was taut. Tenderness was present over left hemiscrotum, and hard in consistency, cord structures were palpable and thickened. Left Testis was palpable and enlarged compared to right. epididymis could not be palpated. Another ultrasound which was done showed reduced vascularity of the left testis. We took him up for emergency scrotal exploration and on table we found the testis and epididymis fully gangrenous, with areas of intratesticular hemorrhage, cord structures were twisted upon itself. Due to being unable to salvage the testis, orchidectomy was done and orchidopexy done on the contralateral side. Histopathology reports showed - Features suggestive of ischemic necrosis of left testis -?due to torsion



Figure 1 INTRA-OP FINDING WITH LEFT TESTIS AND EPIDIDYMIS GANGRENOUS AND CORD STRUCTURES TWISTED

SCENARIO TWO-17 year old male sustained injury to the left scrotum while getting down from the bicycle. History of pain over the left scrotum which subsided with rest. 4hrs later his pain worsened, with added lower abdomen pain and also developed swelling of the left scrotum. Presented to the opd on same day, with tenderness and swelling of left testis. Thickened cord structures. USG showed enlarged and non enhancing left testis, suggestive of torsion with non-viable testis. Emergency scrotal exploration with left orchidectomy and right orchidopexy was done. FINDINGS-testis was gangrenous with the cord structures twisted and edematous. The entire parenchyma was gangrenous. HPE-F/S/O ischaemic necrosis? due to torsion

DISCUSSION:



Figure 2 INTRA-OP PICTURE SHOWING GANGRENOUS LEFT TESTIS AND EPIDIDYMIS

The most important risk factor for testicular torsion is an anatomical predisposition, the commonest being a high or a complete investment of the testicle and the spermatic cord (bell clapper deformity) by the tunica vaginalis.[1]. A strong contraction of this muscle can therefore rotate a predisposed, freely mobile testicle, which may go on to undergo torsion.[1]. Those individuals who take part in vigorous activities may spontaneously undergo testicular torsion . Sometimes the testicular torsion subsides on its own [detorts], this entity is known as intermittent testicular torsion and needs orchidopexy, as it can go into torsion at any time.

The combination of reports on trauma induced testicular torsion[4][1] with this case report gives an overall testicular salvage rate of 40% (6 of 15) in trauma induced testicular torsion in the medical literature. It may be very difficult at times to distinguish clinically, torsion and an acute injury. These patients must be referred immediately to an urologist or a general surgeon where an assessment can be made and further investigations or immediate surgical exploration performed as necessary.[5] Where there is a high clinical suspicion of testicular torsion, further investigations are unnecessary and immediate surgical exploration is warranted. However, where physical examination is equivocal, colour Doppler ultrasonography or scintigraphy may be helpful in establishing the diagnosis[5,7]

In the above case scenarios the presentations were delayed and the patients symptoms were not indicative of the underlying dire pathology, hence the testis could not be salvaged in both cases.

We also infer that in the above two scenarios the patients were in their adolescents [13 and 17 years] and both cases were on the left side ,as the lie is lower than right .

CONCLUSION:

Testicular torsion in the setup of blunt scrotal trauma is rare and can be missed by many. Hence a thorough physical examination and ultrasound Doppler should be done in such cases and intervened as soon as possible to salvage the testis .Thus adolescent boys sustaining blunt injury scrotum should be evaluated thoroughly to rule out torsion testis.

ACKNOWLEDGEMENTS:

Nil

REFERENCES-

1. Yeap Joo Seng, Kevin Moissinac.[2000], Trauma induced testicular torsion: a reminder for the unwary, Emergency Medicine Journal 2000;17:381-382.
2. Williamson RC. Torsion of the testis and allied conditions. Br J Surg. 1976 Jun;63(6):465-76. PubMed PMID: 6106.
3. Daniel DaJusta, Candace F. Granberg, Carlos Villanueva, Linda A. Baker .[2012] Contemporary Review of Testicular Torsion: New Concepts, Emerging Technologies and Potential Therapeutics, J Pediatr Urol. 2013 Dec; 9(6): 10.1016/j.jpuro.2012.08.012.
4. King LM, Sekaran SK, Sauer D, et al. Untwisting in delayed treatment of torsion of the spermatic cord. J Urol 1974;112:217-21.
5. Siegel MJ. The acute scrotum. Radiol Clin North Am 1997;35:959-76
6. Elsaharty S, Prantikoff K, Magoss IV, et al. Traumatic torsion of the testis. J Urol 1984;132:1155-6
7. Süzer O, Ozcan H, Küpeli S, et al. Color Doppler imaging in the diagnosis of the acute scrotum. Eur Urol 1997;32:457-61.