Torsion of Undescended Inguinal testis

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How to cite this article: Rashmin Kalaswa, Kush Parikh, Palak Vora, et. al. Torsion of Undescended Inguinal testis. International Journal of Contemporary Surgery 2023;11(2).

Abstract:

Torsion of undescended testis within inguinal canal is a rare surgical emergency. The delay in detection as well as treatment may result in poor salvage of affected testes. There are limited number of such cases are reported in medical literature. Clinical examination and early surgical intervention remain the main stay of management. We present a case of a14-year-oldmale child presented to surgical OPD with abdominal pain, vomiting and right groin swelling. He was diagnosed as the torsion of cryptorchid testis in right inguinal canal. Emergency exploration done through the inguinal approach and orchidopexy was carried out on the right side.

Keywords: Testicular torsion, inguinal testis, undescended, orchidopexy

Introduction:

Cryptorchid torsion is a relatively rare condition reported in literature especially as case reports, even though the risk of torsion is high with undescended testis. Proper clinical examination and early diagnosis of torsion of undescended testis is very important in salvaging the testis.[1–3] Testicular torsion is rare but most serious condition, so A pediatrician and clinical practitioner must be aware of possible torsion when it is in inguinal region.[4]

The delay in diagnosing the torsion of UDT may result in reduce vascularity and might lead to orchidectomy as the final treatment. Surgery within six hours of torsion have high successrate in saving the testes. [5,6] Here we report a case of torsion in right sided undescended inguinal testis in a 14 year male child.

Clinical Summary:

A 14 year old boy came to the surgical OPD with pain and swelling in right groin since morning. The pain was associated with nausea and vomiting. No history of trauma or fever.

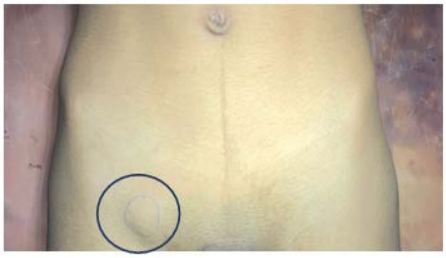

Figure 1. Right inguinal swelling

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Patient noticed the swelling in right inguinal region before 3 days and history of single testis in scrotum since childhood. Patient's bowel habits were normal. On clinical examination, right sided inguinal region had a soft, mobile~2 X 2 cm swelling, non-tender, without impulse on coughing, non-reducible, non-compressible. Overlying skin was normal. The hemi-scrotum on right side was empty. Left sided testis was normal and found within scrotum.

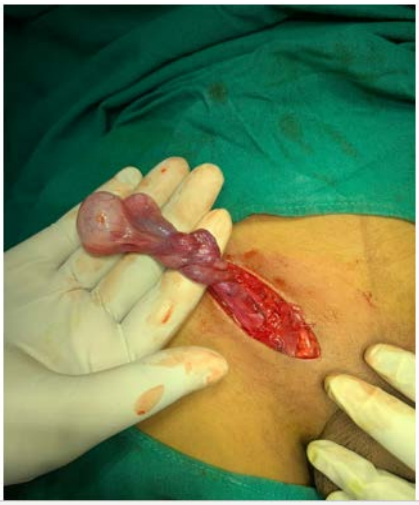

Figure2. Twisted spermatic cord and viable testis

Management and Outcome of case:

Urgent Ultrasonography doppler of bilateral inguino-scrotal region report showed small right sided testis with intact vascularity and normal echotexture seen in Iinguinal canal close to deep inguinal ring. Twisting of vessels seen at deep inguinal ring, raising the possibility of right undescended testis with torsion. Patient was taken for emergency exploration after all preoperative investigations. Incision was kept in right inguinal. Twisted spermatic cord near deep inguinal ring, right testis found at superficial inguinal ring. Testis was untwisted by de-rotatingit and anchored after confirming its viability. Deep inguinal ring narrowing done with absorbable suture material and wound closed layer wise.

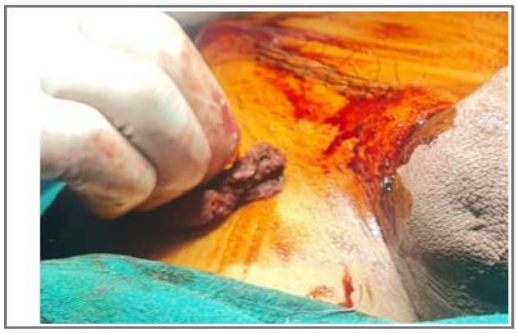

Figure 3. Immediate Post-operative image showing the visible outer side anchored testis

The post-operative period was un-eventful, and patient was discharged on 4thpost-operative day.

Discussion:

Torsion in undescended testis is rare surgical emergency. If not treated timely, this entity can result in orchidectomy.[4]The incidence of torsion in UDT have been reported in limited extent and mainly as case reports. 1,6 undescended testes found mainly intra-abdominal, in inguinal region, superior inguinal pouch or upper scrotum. In the present case report, after six hours of torsion, the testis was found viable, so orchidopexy with litter's repair was done. The role of contralateral testis fixation is controversial in preventing torsion of the testis.[7] In the present case study, the opposite testis kept in normal position without fixation. Such cases may have accompanying inguinal hernia in more than ninety percent cases. Inguinal undescended testicular torsion found commonly on left side more than right side. [1] The mechanism of spermatic cord torsion in undescended testis is not clearly understood yet but few theories are there which describes the block in the descend of testis. Abnormal contraction of cremasteric muscles and contracture of hip blocks the descend of testis into scrotum. This theory was supported by more than half of incidence data of neuromuscular diseases evidence. [6]

Conclusion:

Limited cases are found in medical literature about undescended testis torsion within the inguinal canal. The present case study shows the importance of clinical examination and early intervention for managing torsion in undescended testis and salvaging it.

Ethical clearance: written informed consent was taken from the patient.

Source of funding- Nil

Conflict of Interest: Nil

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