

Recurrent Testicular Torsion After Orchiopexy: An Underrecognized Emergency

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Abstract: Testicular torsion is a urologic emergency requiring prompt intervention to preserve testicular viability. Although orchiopexy is considered a definitive preventive procedure, recurrent testicular torsion remains a rare but documented complication. We report the case of a 15-year-old boy who presented with acute testicular pain four years after prior orchiopexy. Clinical findings were highly suggestive of torsion, while Doppler ultrasound showed reduced but preserved blood flow. Emergency surgical exploration revealed a 180° torsion despite previous fixation, with no functional sutures identified. Testicular viability was restored after detorsion, and repeat three-point orchiopexy using non-absorbable sutures was performed, along with contralateral fixation. This case highlights that prior orchiopexy does not eliminate the risk of torsion and that clinical suspicion should outweigh imaging findings. Early surgical exploration remains crucial to prevent testicular loss.

Keywords : testicular torsion ; recurrent torsion ; orchiopexy ; acute scrotum ; testicular fixation ; case report.

1. INTRODUCTION:

Testicular torsion is a urologic emergency with potentially devastating consequences if there is a delay in diagnosis[1]. Testicular torsion occurs in 1/4000 males under the age of 25[2]. Testicular torsion can occur at any age but usually occurs in young males, with a bimodal incidence in the paediatric population: during the first year of life, and between the ages of 13 and 16 years. Timely surgical exploration is required to untwist the ischemic testicle and thereafter fixate it (orchidopexy) to prevent retorsion. Identification and management should ideally be performed within 4–6 h of symptoms onset to prevent testicular infarction. If treated within 6 h of onset of pain, there is a greater chance of saving the affected testicle, as 90–100% testicles will be saved[3].

2. CASE REPORT

A 15-year-old boy presented to the emergency department with acute left testicular pain that started 2 hours prior to admission. The pain was sudden in onset, constant, and associated with nausea but no vomiting. He reported no recent trauma or physical activity. Past medical history revealed a left orchidopexy performed 4 years earlier for intravaginal testicular torsion.

On examination, the left testis was tender, high-riding, and had a transverse lie. The cremasteric reflex was absent. Scrotal Doppler ultrasound demonstrated reduced intratesticular blood flow, although arterial signals were still detectable. Given the clinical suspicion of recurrent torsion, urgent surgical exploration was indicated.

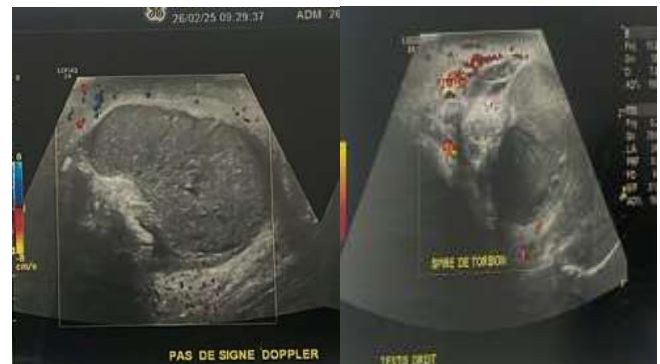


Fig 1 : Ultrasound images : left-sided spermatic cord twisting with an avascular testis on Doppler. Intraoperatively, the testis was found to be torsed 180° despite previous fixation. The previous fixation sutures were no longer identifiable, suggesting absorption or failure of tissue incorporation. The testis regained normal color after detorsion and was secured using three-point fixation with non-absorbable sutures.



Figure 2 : Intraoperative appearance of the testis.

The contralateral testis was also fixated to prevent future events. Postoperative recovery was uneventful, and the patient remained asymptomatic at follow-up.

3. DISCUSSION

Recurrent torsion after previous orchidopexy is an immensely rare finding. Techniques of fixation have changed over the years, from using an inguinal to scrotal approach, from single point fixation to a 3-point fixation, and from using absorbable to nonabsorbable sutures[2].

There have been reported cases of recurrent testicular torsion after the previous.

The time interval between orchidopexy and torsion recurrence ranged from one year to eight years[1], [2], [4], [5].

Van Welie et al. described that out of 25 cases where the type of suture was reported during the initial torsion, absorbable sutures were used in 21 cases[3].

The most common and alarming complaint is generalized testicular pain at rest. However, the presentation is variable and there may or may not be any history of trauma or physical activity. Nausea and vomiting can occur. Dysuria and fever are not common[6].

The utility of additional diagnostic tests is very limited, and may even be harmful. This observation once again demonstrates the limitations of echo-Doppler when the testicle is seen at the stage of subtorsion[7].

Doppler ultrasound was performed in 13 of 46 cases (28%), while testicular nuclear scan was performed in five cases (10.8%). Eleven cases (23.9%) were misdiagnosed, with seven cases (15.2%) being misdiagnosed as epididymitis and one case (2.2%) as spermatic cord neuralgia[3].

According to Mor et al., a total of eight cases of recurrent testicular torsion were identified. In all cases, the testicles appeared viable after detorsion, and redo fixation was routinely performed, except in one instance of missed torsion that required orchiectomy[8].

4. CONCLUSION:

Recurrent testicular torsion after orchidopexy is rare but must remain a differential diagnosis when a previously fixated testis becomes acutely painful. Clinical suspicion remains paramount, as imaging can be misleading, especially in cases of subtorsion. Early surgical re-exploration ensures testicular salvage. Using non-absorbable sutures and multi-point fixation may reduce recurrence risk, although no technique guarantees absolute prevention.

5. REFERENCES

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