

## CASE REPORT



# Ectopic testicular torsion in a 18 years old patient

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### ABSTRACT

Torsion of an ectopic testis is a rare and challenging medical condition characterized by the abnormal twisting of the testicle around its vascular pedicle, occurring outside the normal scrotal position. Here we report the case of an 18 years old patient presenting with acute abdominal pain and tenderness to the emergency department. Through detailed clinical evaluation and imaging, the diagnosis of a left intra-abdominal testis torsion was established. Prompt surgical intervention was initiated and right orchiectomy was performed, this case report highlights the significance of timely identification and prompt intervention in cases of ectopic testicular torsion. Improved healthcare provider awareness is crucial for enhancing patient outcomes and preventing potential complications.

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## 1. INTRODUCTION

cryptorchidism is incomplete migration where the testicle is located at any point along its normal descent path, towards the scrotum, it is distinct from Testicular ectopia, which is defined by the migration and localization of the testicle outside its normal descent path [1].

The presence of the testis in the abdominal cavity is rare and must be evoked ahead of any vacuity of the scrotum with a non-palpable testis in the inguinal canal [2]. An intra-abdominal testis has a greater risk of torsion than that which is normally descended, Furthermore, the lack of a gubernaculum, inadequately sized spermatic cord relative to the often-atrophic testicle, contributes to this heightened risk [3].

Ectopic testis torsion is a rare yet challenging medical condition, primarily affecting pediatric and adolescent populations. This phenomenon involves the abnormal twisting of the testicle around its vascular pedicle, leading to compromised blood flow and ischemia [4]. Diagnosis presents a challenge due to its rarity and diverse clinical presentations, including acute scrotal or abdominal pain, swelling, and tenderness [5].

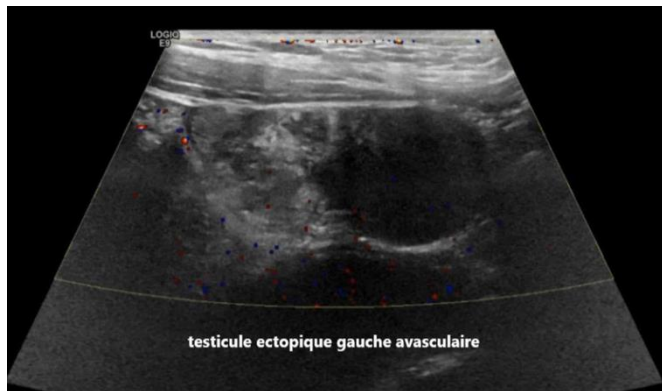
Doppler ultrasonography plays a crucial role in confirming the diagnosis by assessing blood flow within the testicle and it can be employed in a noninvasive bedside setting [6].

Timely and accurate imaging is pivotal in guiding the decision for surgical exploration. Surgery is the mainstay of treatment, aiming to promptly detorse the twisted testicle and restore blood flow, preventing further ischemic damage. In cases where testicular viability is compromised, orchidectomy might be necessary. Understanding the occurrence patterns, underlying mechanisms, accurate diagnosis through imaging, and timely surgical intervention is essential in managing ectopic testis torsion effectively, ensuring the best possible outcomes for affected individuals.

## 2. CASE REPORT

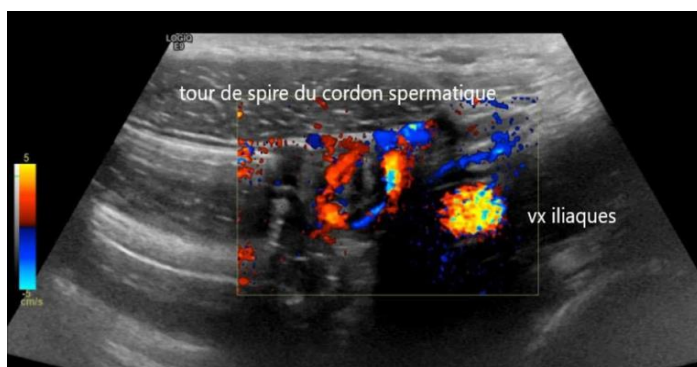
We present a rare case of left ectopic testis torsion of an 18-year-old male presented to the emergency department on 2 occasions over a 3-day period with symptoms of nausea, vomiting, and severe abdominal pain, mimicking symptoms of more common abdominal emergencies.

A physical examination demonstrated an empty scrotum on the left side accompanied by tenderness in the left lower quadrant. The rectal examination found lateralized pain on the left side of the Douglas pouch. The rest of the somatic examination was unremarkable. The blood count indicated leukocytosis at 13,000 elements/mm<sup>3</sup> and a normal hemoglobin level, raising concerns about intra-abdominal pathology. Abdominal doppler ultrasound confirmed the diagnosis, revealing a non-viable intra-abdominal testis (figure 1) with a spiral twist of the spermatic cord (figure 2).



**Figure 1.** intra-abdominal testis with no evidence of vascular flow on doppler mode.

After a standard preoperative assessment surgical exploration by laparotomy was decided through a left iliac incision, leading to the intraoperative discovery of an intra-abdominal, nonviable testis. The spermatic cord showed one and half twists of rotation (figure 3). Given the extensive necrosis and compromised blood supply, the decision was taken to perform right orchietomy. The opposite testis was normal. Postoperative period was uneventful. The specimen was sent for histopathology and the report confirmed nonviable testicular tissue.



**Figure 2.** Doppler ultrasound: a spiral twist of the spermatic cord.

### 3. DISCUSSION

The permanent localization of the testicle outside the scrotum results from an anomaly in gonadal migration during the fetal period. testicular ectopia refers to the condition where the testicle is located outside its normal descent path. Cases of testicles located in intra-abdominal, perineal, and crural positions have already been reported [1].

Torsion of the ectopic testis is an exceptionally rare condition, contributing to delayed diagnoses and subsequent ischemic necrosis of the affected testicle due to its infrequent and perplexing clinical manifestations. Predisposing factors such as trauma or associated spastic neuromuscular disorders have been identified in some instances [7].



**Figure 3.** Surgical exploration shows a non-viable ectopic testis with one and a half spiral twists of the spermatic cord.

Clinicians should maintain a high index of suspicion for testicular torsion when evaluating patients with ectopic testes who present with acute abdominal pain. Clinical suspicion and early diagnosis are imperative, potentially salvaging the ectopic testis in these patients.

There is ongoing debate regarding the management of testicular torsion on an intra-abdominal testis and when the testis is viable. Some experts suggest performing an orchietomy due to the increased risk of malignant degeneration, On the other hand, some suggest orchidopexy for children aged below 2 years or adults who refuse surgery due to psychological or cosmetic concerns. It is crucial that this orchidopexy procedure is accompanied by vigilant monitoring and frequent assessments of tumor markers [3]. However, one question still remains unanswered in cases of ectopic testis torsion: whether orchidopexy should be performed on the contralateral normal testis, a practice routinely followed in torsion cases involving undescended testis [8].

#### 4. CONCLUSION

This condition presents a diagnostic dilemma due to its uncommon nature, leading to delayed intervention and potential complications. This case explores the clinical manifestations, diagnostic approaches, and management strategies for torsion in ectopic testes. It emphasizes the importance of early recognition, prompt surgical intervention, and highlights the significance of awareness among healthcare providers to improve outcomes for patients affected by this condition.

#### COMPETING INTERESTS

The authors declare that they have no known competing financial or personal relationships that could have appeared to influence to work reported in this paper.

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