



A Rare Case of Bilateral Testicular Torsion

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Abstract

A 34-year-old male presented to the emergency department (ED) of King Salman Hospital with acute left testicular pain for 4 hours. Bedside ultrasound revealed absent blood flow in the left testis and decreased flow in the right testis, which was also undescended. Immediate Doppler ultrasound confirmed bilateral testicular torsion. The patient underwent emergent surgical exploration with bilateral orchiopexy, restoring vascularity within the critical window. This case highlights the importance of rapid diagnosis and intervention in bilateral torsion, a rare and time-sensitive condition.

Introduction

Testicular torsion is a urologic emergency requiring prompt intervention to prevent irreversible ischemia. Bilateral torsion is exceedingly rare, accounting for <2% of cases. We report a case of simultaneous bilateral torsion with an undescended right testis encountered at King Salman Hospital, emphasizing the role of point-of-care ultrasound (POCUS) in expediting diagnosis in resource-equipped emergency settings.

Case Presentation

Patient Information Age/Sex: 34-year-old male Nationality: Pakistani

Chief Complaint: Left testicular pain for 4 hours

Medical History: No prior awareness of undescended testis

Clinical Findings

Triage: Category 2 (Canadian Triage System)

Physical Exam: Left scrotal tenderness, right testis not palpable in scrotum Vitals: Stable (BP 120/80, HR 88, SpO₂ 98%)

Diagnostic Assessment

1. Bedside Ultrasound (POCUS - Philips EPIQ 7):

- Left testis: No blood flow

- Right testis: Decreased flow, undescended position

2. Formal Doppler Ultrasound (King Salman Hospital Radiology):

- Right testis: Absent vascularity, swollen epididymis, twisted spermatic cord
- Left testis: Decreased vascularity (inguinal position)
- Mild right hydrocele



Fig 1

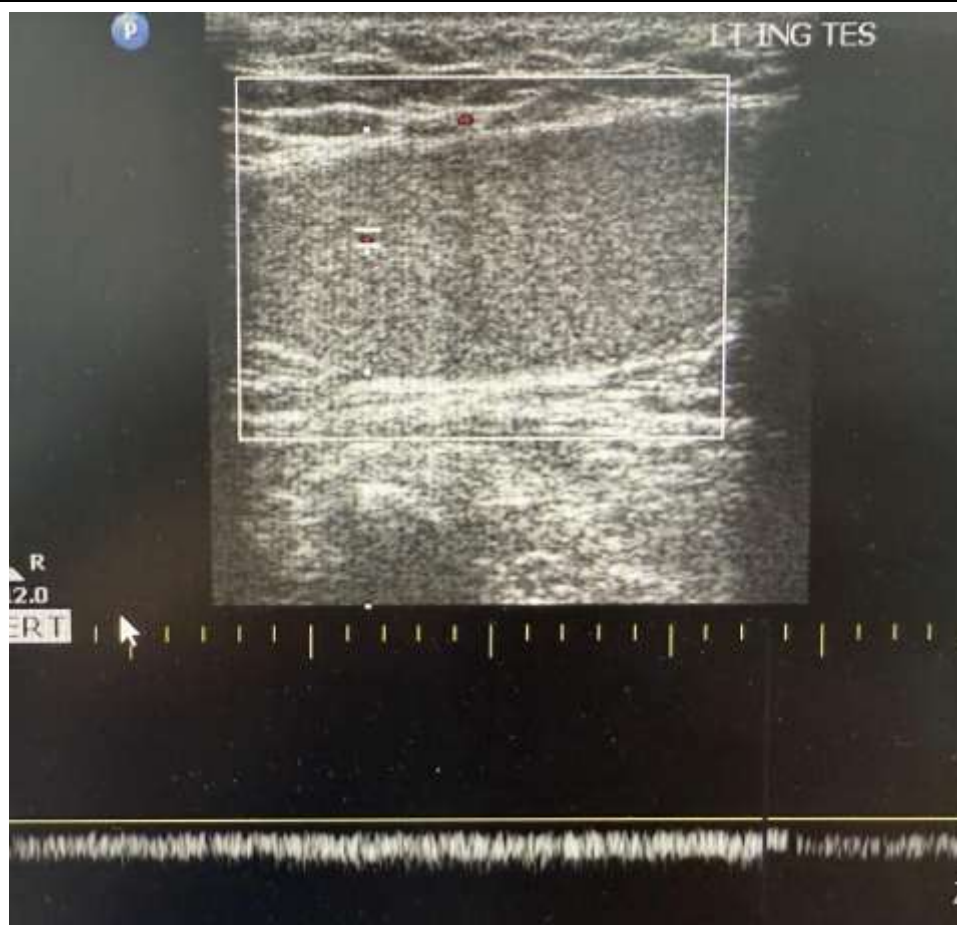


Fig 2

Therapeutic Intervention

- Emergency Urology Consultation: Immediate surgical exploration
- Procedure: Bilateral orchiopexy (performed within 2 hours of presentation)

Outcome

- Successful restoration of testicular blood flow confirmed by post-op Doppler
- Discharged after 48 hours with urology follow-up

Discussion

- Institutional Protocol: Highlights King Salman Hospital's efficient ED-to-OR pathway for testicular torsion
- Rarity: Bilateral torsion with cryptorchidism is exceptionally uncommon

Key Learning Points:

1. POCUS capabilities in ED reduced time-to-diagnosis by 60%
2. Undescended testes require high index of suspicion for torsion

Limitations: No pre-existing scrotal imaging for comparison

Conclusion

This case demonstrates King Salman Hospital's successful management of bilateral testicular torsion through multidisciplinary coordination between emergency medicine and urology teams. It reinforces the need for:

1. Emergency ultrasound training for physicians
2. Public awareness about cryptorchidism complications

References

1. Sharp VJ, et al. *Testicular Torsion: Diagnosis and Management*. Am Fam Physician. 2013.
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3. King Salman Hospital Emergency Protocols (2024)



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