

TESTICULAR TORSION IN AN ADULT: A CASE REPORT OF AN UNCOMMON CLINICAL IN A 43-YEAR-OLD MALE

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ABSTRACT

Objective: This report aims to document the occurrence of testicular torsion in adult males, explicitly highlighting a case involving a 43-year-old man. It emphasizes the importance of maintaining awareness of this condition within the productive age group. **Case(s) Presentation:** We present a rare unilateral late-onset left testicular torsion case in a 43-year-old male. Testicular torsion is predominantly observed in youth and teenagers, making its diagnosis infrequent in mature individuals. The patient experienced acute testicular pain along with atypical symptoms, which are crucial for the accurate diagnosis of adult testicular torsion. **Discussion:** Testicular torsion is the most prevalent surgical emergency concerning the testis, primarily affecting younger populations. This case underscores that adult males are also susceptible to this condition, necessitating a high index of suspicion among healthcare providers. Notably, acute testicular pain in adults may not always manifest in a typical manner, complicating timely diagnosis and treatment. **Conclusion:** This case serves as an essential reminder for healthcare professionals to remain vigilant regarding the potential for testicular torsion in adult males, particularly those in the productive age group. Early recognition and intervention are critical to preventing complications associated with ischemia, underscoring the need for heightened awareness and prompt assessment in such scenarios. By doing so, healthcare providers can significantly improve outcomes for affected patients.

Keywords: Adult, testicular torsion, left testicular.

ABSTRAK

Tujuan: Laporan ini bertujuan untuk mendokumentasikan terjadinya torsi testis pada pria dewasa, secara khusus menyoroti kasus yang melibatkan seorang pria berusia 43 tahun. Ini menekankan pentingnya menjaga kesadaran akan kondisi ini dalam kelompok usia produktif. **Presentasi Kasus:** Kami menyajikan kasus langka torsi testis kiri onset terlambat unilateral pada pria berusia 43 tahun. Torsi testis sebagian besar diamati pada remaja dan remaja, membuat diagnosisnya pada individu dewasa jarang terjadi. Pasien mengalami nyeri testis akut bersama dengan gejala atipikal, yang sangat penting untuk diagnosis torsi testis dewasa yang akurat. **Diskusi:** Torsi testis adalah keadaan darurat bedah yang paling umum mengenai testis, terutama mempengaruhi populasi yang lebih muda. Kasus ini menggarisbawahi bahwa laki-laki dewasa juga rentan terhadap kondisi ini, yang memerlukan indeks kecurigaan yang tinggi di antara penyedia layanan kesehatan. Khususnya, nyeri testis akut pada orang dewasa mungkin tidak selalu bermanifestasi dengan cara yang khas, mempersulit diagnosis dan pengobatan tepat waktu. **Simpulan:** Kasus ini berfungsi sebagai pengingat penting bagi para profesional kesehatan untuk tetap waspada mengenai potensi torsi testis pada pria dewasa, terutama mereka yang berada dalam kelompok usia produktif. Pengenalan dan intervensi dini sangat penting untuk mencegah komplikasi yang terkait dengan iskemia, menggarisbawahi perlunya kesadaran yang lebih tinggi dan penilaian yang cepat dalam skenario seperti itu. Dengan demikian, penyedia layanan kesehatan dapat secara signifikan meningkatkan hasil untuk pasien yang terkena.

Kata kunci: Dewasa, torsi testis, testis kiri.

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INTRODUCTION

Testicular torsion is an emergency condition that can cause permanent damage to the testis due to ischemia blood flow, primarily affecting boys aged 1

to 17. Testicular torsion occurs in 5.9 cases per 100,000 people within this age range and 1.3 per 100,000 in older adult males.¹ Testicular torsion primarily occurs in neonates and young men.² Testicular torsion also occurs in about 1 out of every

4,000 male participants each year for those under 25 years old, while for men over 25, the chance of experiencing it in a lifetime is approximately 1 in 160.³ Adults typically have lower salvage rates than children due to delayed presentation and more significant twisting.⁴ The incidence of left testicular torsion is higher, likely because the left spermatic cord is longer than the right.⁵ The left testicle is also lower than the right side, so it tends to rotate the testicle and twist the spermatic cord.⁶ Quick diagnosis and surgery within 24 hours are critical, as surgical fixation is necessary even after untwisting the testis.¹

The pathomechanism behind testicular torsion consisted of several risk factors, but the primary abnormality discussed was familial abnormalities such as bell clapper deformity that involved the gubernaculum development.⁷ Among all testicular torsion cases, 4-8% of the cases are estimated to have a history of antecedent trauma.⁸ Rotation and arterial constriction of the testicular tissue resulted in reactive oxygen species (ROS) formation, further damaging testicular DNA and the death of germinal cells.⁹ Surgical measures have been the mainstay of management of testicular torsion, including scrotum organ revision, gonad detorsion, and orchiopexy, if viable.¹⁰ This difference in incidence rates makes it meaningful and exciting to report a rare unilateral torsion of the testicle in 43-year-old adults.

CASE(S) PRESENTATION

A 43-year-old Indonesian man appeared at the emergency room urology department known for its history of left-sided testicular pain and swelling since the day before. The pain was felt when the patient woke up. The patient also felt nauseous without vomiting. There was no other medical or surgical history. The urine production of the patient was 1500 cc in 24 hours, clear yellow in color. The clear urine output suggested adequate hydration and normal renal function, which is important considering the acute nature of his presentation. However, the combination of testicular pain and swelling raised immediate concerns about potential testicular torsion, a condition that can lead to significant complications if not addressed promptly.

On examination, there was left testicular swelling and tenderness. The TWIST (Testicular Workup for Ischemia and Suspected Torsion) score of the patient was four (intermediate risk), with a sum of oedema, queasiness, and lack of cremasteric

reflex. This score is crucial because testicular torsion is likely and requires urgent surgical evaluation. The clinical presentation of left testicular torsion showed left testicular swelling [Figure 1]. The intermediate TWIST score emphasizes the importance of prompt assessment and treatment, indicating that the patient faces a higher risk of complications from torsion. Moreover, the absence of the cremasteric reflex and other clinical signs strengthened this concern.



Figure 1. Left testicular torsion: Clinical presentation and (arrow) swelling.

Ultrasonography (US) showed enlargement of the left testicular size compared to the right with decreased vascularization [Figure 2]. There was also a whirlpool sign on the left spermatic cord. The patient was suspected of partial testicular torsion. A left hydrocele was also present. The laboratory examination showed slightly cloudy urine. The imaging results were crucial in confirming the suspicion of testicular torsion. The reduced blood supply shows that blood flow is compromised, which requires immediate surgery to avoid permanent damage to the testicle.

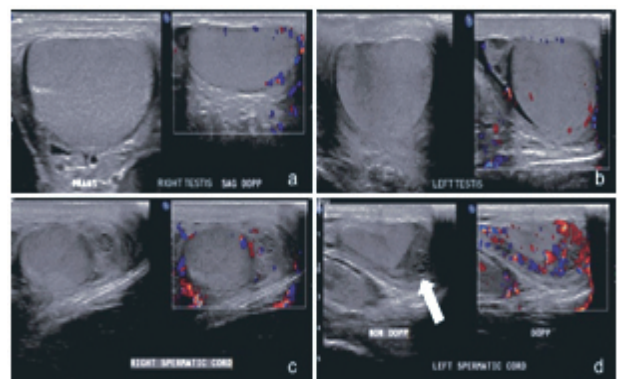


Figure 2. Ultrasound findings in a 43-year-old male testis: (a) Normal right testis, (b) enlarged left testis with decreased vascularization, (c) normal right spermatic cord, and (d) 'whirlpool' sign (arrow) in the left spermatic cord.

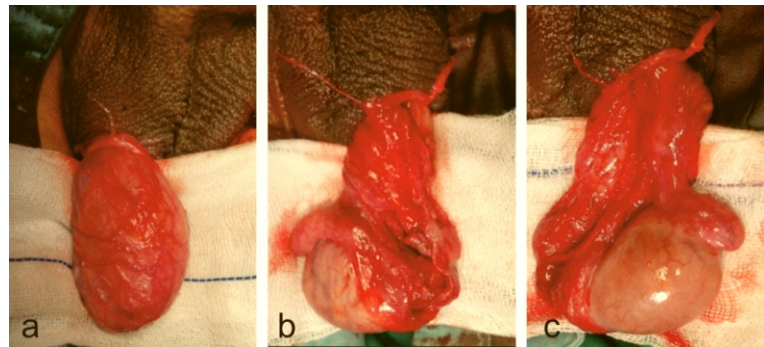


Figure 3. Testicular conditions in a 43-year-old male. (a) Normal right testis, (b) left testicular torsion, and (c) vital left testis post-detorsion.

The patient was diagnosed with late-onset left testicular torsion. The importance of timely surgical exploration is underscored by the risk of testicular necrosis associated with prolonged torsion. Upon surgical exploration, there was a left testicle sized one and a half larger than usual, twisted 180 degrees counter-clockwise [Figure 3]. The patient was given detorsion and left testicular reperfusion with NaCl 0.9% for fifteen minutes. Bilateral orchidopexy was performed. Surgical findings confirmed the diagnosis of left testicular torsion and highlighted the severity of the condition through the enlarged size of the affected testis. Detorsion and reperfusion were critical steps in salvaging the testis, and the subsequent bilateral orchidopexy aimed to prevent recurrence of torsion.

This case illustrates the critical nature of recognizing and managing testicular torsion in a timely manner. The integration of clinical evaluation, scoring systems like TWIST, and imaging studies are crucial in guiding surgical intervention. Early recognition and appropriate management of testicular torsion can significantly impact patient outcomes, preserving testicular viability and function.

DISCUSSION

The clinical diagnosis and management of scrotal pain are essential, such as in the case of testicular torsion. Testicular torsion is a painful scrotal and often occurs in neonates and young males. Our patient was 43 years old, which highlights the rarity of this condition in adult males.

The age of patients with testicular torsion in our case report, as mentioned by Smith, suggests that this rare occurrence can occur in adult males.^{1,11} The previous study showed testicular torsion is primarily

observed in younger males (Brungardt et al).⁴ noted an average age of around 28 years, as demonstrated by Pyrgidis et al.³, who reported a cohort with a median age of 16 years.

In contrast, the median age of testicular torsion patients was 30 years (21 to 89 years).^{1,12} A study also emphasizes the need for awareness regarding atypical presentations of testicular torsion across various age groups, reinforcing the notion that timely diagnosis and management are crucial for optimal outcomes.¹³ Moreover, in Indonesia, there has been no recorded testicular torsion in individuals aged 40-65 in recent years. Consequently, this individual represents the first patient encountered within this age range. A thorough history taking and physical examination is essential in suspicion of testicular torsion. Most literature elaborates on the clinical manifestations in young rather than older males. The main complaint of patients when coming to the hospital is unilateral (left) scrotal pain. The onset of patient symptoms occurs within 24 hours. This time differs from previous studies where the average time from symptom onset to seeking medical attention is 5 hours, ranging from 3 to 11 hours.¹² In this case, we did not find any factors that could increase the risk of testicular torsion, such as a history of a previous twisted testicle or infection in the scrotum area. The results of the physical examination of our patient showed swelling (left) testicles, tenderness on palpation, and absence of cremasteric reflex.

Testicular torsion patients usually present with severe and sudden.^{1,3,4,11,12} Whereabouts in our results include unilateral left testicular pain. Laboratory examination in this case showed hematuria on urinalysis, which was an atypical presentation. Further imaging, such as ultrasound in the emergency room by comparing the contralateral

side of the testicle, is used to confirm the diagnosis. Whirlpool sign and reduced vascularization flow are other findings in this case of testicular torsion. The imaging in the four case reports also aligns with this case. There was a decrease in blood flow, which indicates the occurrence of torsion with infarction.^{1,4,11} In this patient, a preoperative diagnosis might have been established, and exploratory surgery with bilateral orchidopexy was conducted. Surgical exploration is commonly performed to assess the damage of testicular torsion and the possibility of detorsion, reperfusion, and orchidopexy.^{1,3,4,11,12} Timely intervention is critical, as delays in treatment can lead to significant complications, including testicular necrosis and loss of function.¹⁴ Furthermore, awareness of atypical presentations, such as hematuria, is essential for clinicians to ensure prompt diagnosis and management, ultimately improving patient outcomes.¹⁵

The degree of testicular torsion is associated with the angle and duration of torsion.¹¹⁻¹² In this report, testicular torsion is a rare case that could be misdiagnosed without proper clinical examination. Recognizing the clinical signs and symptoms associated with testicular torsion is vital, as delayed diagnosis can lead to irreversible damage.¹⁶ Immediate procedure is also essential to be performed, as testicular ischemia risk will be increased if the testis is tortured for more than 24 hours.¹¹ However, the prognosis for the testis may vary among individuals, even with the same rotation or duration. The common complications of testicular torsion are infertility, infarction, necrosis, and loss of testicular function.^{1,3,4,11,12} The use of scoring systems, such as the TWIST score, can aid clinicians in identifying at-risk patients who may require urgent evaluation.¹⁷ In conclusion, urologists should recognize such an uncommon condition as testicular torsion as a case of scrotal pain in older patients.

CONCLUSION

This literature reported the incidence of left testicular torsion in a 43-year-old male, which showed that testicular torsion must be included as the differential diagnosis of testicular pain in the adult population.

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