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AANHS Journal
Journal of Medical Science

AANHS Asian Australasian Neuro & Health Science Journal
Universitas Sumatera Utara - Indonesia

Late Presentation of Testicular Torsion: A Case Report

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Abstract

Introduction: Testicular torsion is a twisting of the spermatic cord, which results in impaired blood flow to the testicle. This urological emergency occurs 3.8 per 100,000 males annually, most often observed younger than 18 years. The left testis is more frequently involved. Bilateral cases report for 2% of all torsions. We describe a male with a late presentation of more than 24 hours of acute testicular pain. Patients hesitate to seek advice from doctors for testicular pain because of unawareness.

Case Reports: A 16-year-old man arrived at the Emergency Room with more than 24 hours history of sudden severe left testicular pain after taking up two gas cylinders, but he was not aware. After more than 24 hours, he came to the emergency room with worsening testicular pain. The physical examination found tender, slightly swollen, and high-riding left testes. Phren test and cremaster reflex were negative on the left testes. TWIST score of the patient was 7 (high risk for testicular torsion). We made quick order for ultrasound, which shows left testicular torsion. Emergency exploration of testes was done, found the necrotic left testes with rotation more than three times. After complete derotation of the cord, the testes were still necrotic, and we decided to do left side orchidectomy after enough observation.

Conclusion: Late presentation to the hospital is one of the causes of delay in treatment and mostly leads to orchidectomy in testicular torsion. Every case of testicular pain should be treated as testicular torsion until proven otherwise.

Keyword: Emergency, Late presentation, Orchidectomy, Testicular torsion

Introduction

Testicular torsion is a twisting of the spermatic cord, which results in impaired blood flow to the testicle. [1] This urological emergency occurs 3.8 per 100,000 males annually, most often observed younger than 18 years. The left testis is more frequently involved. Bilateral cases report for 2% of all torsions. [2] Testicular torsion is a time-dependent diagnosis, a true urologic emergency, and early evaluation can assist in urologic intervention to prevent testicular loss. Ultrasound is the ideal imaging modality to evaluate the scrotal contents. Testicular viability significantly decreases 6 hours after the onset of symptoms, hence early diagnosis is key. [3] Surgery is the only treatment. We describe a male with a late presentation of more than 24 hours of acute testicular pain.

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 ISSN: 2686-0848 ; DOI : 10.32734
Journal Homepage: http://aanhsj.usu.ac.id

Case Report

The A 16-year-old man arrived at the Emergency Room with more than 24 hours history of sudden severe left testicular pain after taking up two 12 kg gas cylinders, but he was not aware. After more than 24 hours, he came to the emergency room with worsening testicular pain. The physical examination found tender, slightly swollen, and high-riding left testes. Phren test and cremaster reflex were negative on the left testes. TWIST score of the patient was 7 (high risk for testicular torsion). Laboratory tests and urinalysis showed average results on all sections. We made quick order for ultrasound.

The Color doppler ultra-sound report was available later with the following comments **(Figure 1)**:

Figure 1. USG Absent flow to the left testicle

1. Right testis is normal to measure. Visible normal blood flow to the right testis
2. The left testis is enlarged measuring 2.83 x 2.17 cm.
3. Left testicular parenchyma echo intensity: inhomogeneous, slightly decreased. No visible flow, visible echo-free shadow at least around the left testis.

Urgent arrangement for the operating theatre was made for surgery after an informed consent was granted. We do emergency operation called exploration testes with orchidectomy sinistra. We find intravaginal torsion of the left testis was found to be rotated three times. The left testis was congested and already necrotic as a result of the twisting of the cord by more than one turn, that is more than 360 degrees **(Figure 2).**

Figure 2. Necrotic left testicle

If left in the scrotum, the necrotic testes will stimulate the formation of anti-sperm antibodies, thereby reducing the fertility capacity in the future. With complete derotation of the cord, the testes still necrotic, and we decided to do left orchidectomy after enough observation. After orchidectomy accomplish, covering layer by layer of the skin with standard fashion.

The post-operative period was an uneventful and was therefore discharged and advised to have a fortnightly follow up as an outpatient in order to detect any untoward effects

Discussion

The patient in this case was 16 years old which is the most common age range (younger than 18 years) of testicular torsion. [2] The possible aetiology in this case is thought to be due to abnormality of tunica vaginalis. Tunica vaginalis, which surround part anterior and lateral surfaces of the testis, in abnormality the tunica surrounds the testes' entire surface, preventing the epididymis' insertion into the scrotal wall. Insertion failure allows the testicle and epididymis to twist easily in the spermatic cord. This congenital abnormality, called the bell clapper deformity, can result in the long axis of the testicle being oriented transversely rather than cephalocaudal. [4] The bell clapper deformity easily aggravated by the trigger, such as high abdominal pressure to cause testicular torsion. In this case, the patient had sudden severe left testicular pain after taking up too much weight, two 12 kg gas cylinders.

Operating theatre lasts within 1 hour 30 minutes, Opening up the congested tunica vaginalis. Make an incision in the skin 2 cm superior and parallel to the inguinal ligament, following the line connecting the internal and external rings. Continue the incision through the subcutaneous fat and the Camper and Scarpa fasciae. [5]

Identify the external oblique fibers and external inguinal ring. Incise along the direction of the fibers from the external inguinal ring. Identify and mobilize the ilioinguinal nerve and separate it so as not to resect it during the radical orchiectomy. Take the 2 leaves of the external oblique fascia with snaps and lift them anteriorly in order to dissect free the spermatic cord along its length. Isolate the spermatic cord at the pubic tubercle. Wrap a Penrose drain tightly around it and secure it with a snap to form a tourniquet. Stretch the point of entry of the cord into the scrotum with a finger and deliver the testicle into the operative site. Identify the gubernaculum and then clamp, divide, and ligate. Confirm the diagnosis with inspection.[5]

Intravaginal torsion of the left testis was found to be rotated three times. With complete derotation, wrapped in warm, soaked gauze, and observed for improvement in color; the testes still necrotic. Take the spermatic cord in 2 portions (a vascular portion and the vas deferens) by doubly clamping, dividing, and ligating above the tourniquet. The cord must be ligated as close as possible to the internal ring to facilitate complete removal of cord tissue in case a later retroperitoneal lymph node dissection is required. Leave long silk sutures on the cord to allow identification of the cord stump. Remove the testicle from the operative field. Inspect the wound and especially the scrotum for adequate hemostasis. Close the external oblique fascia and external ring in a running fashion, appose Scarpa fascia in an interrupted fashion, and close the skin. [5]

Early and prompt diagnosis is vital to saving the testicle and preserving future fertility. The rate of testicular viability decreases significantly after 6 hours from the onset of symptoms. The time elapsed between onset of pain and performance of detorsion, and the corresponding salvage rate, is as follows: < 6 hours – 90-100% salvage rate, 12-24 hours – 20-50%, and >24 hours – 0-10% salvage rate of the testes **(Figure 3)**. [6]

Testicular torsion is associated with testicular malignancy, especially in adults; one study found a 64% association of testicular torsion with testicular malignancy. This is thought to be secondary to a relative increase in the broadness of the affected testicle compared with its blood supply. [6] However, in a review of 32 patients who had been diagnosed with testicular torsion, testicular cancer was found in 2 of the 20 patients who had undergone orchiectomy, a rate of 6.4%. [7]

The operation aims to reposition testes correctly and examine whether testes are still viable or already necrosis. Patients hesitate to seek advice from doctors for testicular pain because of

unawareness could delay the treatment. Besides, late presentation to the hospital is the primary cause of delay in diagnosis and mostly leads to orchidectomy in such patients.

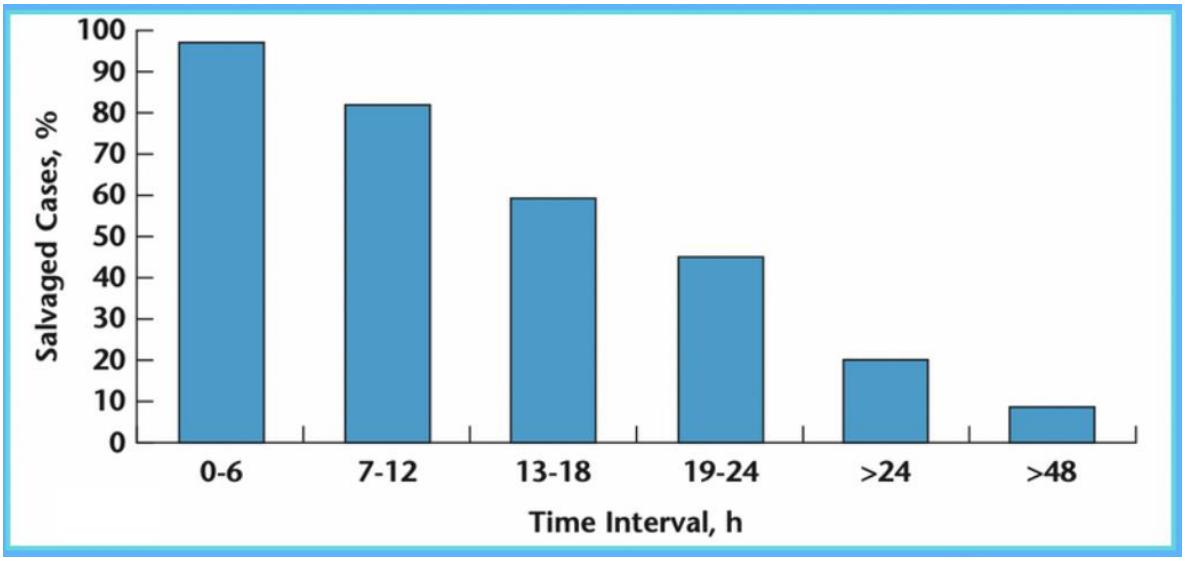

Figure 3. Immediately surgical salvage after torsion [7]

Conclusion

Late presentation to the hospital is one of the causes of delay in treatment and mostly leads to orchidectomy in testicular torsion. Every case of testicular pain should be treated as testicular torsion until proven otherwise.

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