Answers to Medical Quiz

A1. Color Doppler Ultrasound.

A2. Acute left testicular torsion and acute left epididymo-orchitis.

DISCUSSION

Testicular torsion is a surgical emergency in pediatric and adult patients. Torsion of the testicle occurs as a result of twist of the spermatic cord leading to occlusion of testicular artery¹.

Testicular torsion occurs frequently in abnormally mobile testicles, especially in cases of high tunica vaginalis attachment such as in bell clapper deformity, in which both the spermatic cord and the testicles are at risk to twist; this is known as intravaginal torsion^{1,2}.

A less frequent type of testicular torsion occurs in cases of long mesorchium attachment of the testicles to the epididymis. This abnormality can lead to a testicular twist on its own axis known as extravaginal torsion².

Acute scrotal pain in pediatric age group is commonly due to testicular torsion, epididymitis, epididymo-orchitis, torsion of the appendix testis and incarcerated inguinal hernia³.

Diagnosis of testicular torsion is based on clinical examination and no further radiological tests are required. Color Doppler Ultrasound might help in the diagnosis of late and doubtful cases⁴.

It is known that Doppler Ultrasound of the testicles in infants is less sensitive and needs experience; it can be very difficult to interpret the flow in the tiny intratesticular arteries because of low velocity^{3,4}.

Surgical exploration of the testicles, detorsion of the affected testicle and bilateral orchidopexy when the detorted testicle is viable. Orchidectomy is required in cases of gangrenous testicle⁵.

The outcome depends on the duration and degree of torsion. When the torsion is less than 6 hours or if the torsion is not complete, the chance of recovery is high⁶.

CONCLUSION

Testicular torsion is one of the emergency cases requiring rapid diagnosis and surgical intervention as soon as possible to save the testicle. The majority of cases present with testicular pain of sudden onset. The prognosis depends on the duration and the degree of torsion.

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Competing interest: None. **Sponsorship:** None.

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REFERENCES

1. Beni-Israel T, Goldman M, Bar Chaim S, et al. Clinical Predictors for Testicular Torsion as Seen in the Pediatric ED. Am J Emerg Med 2010; 28(7):786-9.

- 2. Boettcher M, Bergholz R, Krebs TF, et al. Clinical Predictors of Testicular Torsion in Children. Urology 2012; 79(3):670-4.
- 3. Schmitz D, Safranek S. Clinical Inquiries. How useful is a Physical Exam in Diagnosing Testicular Torsion? J Fam Pract 2009; 58(8):433-4.
- 4. Yagil Y, Naroditsky I, Milhem J, et al. Role of Doppler Ultrasonography in the Triage of Acute Scrotum in the Emergency Department. J Ultrasound Med 2010; 29(1):11-21.
- 5. Ramos-Fernandez MR, Medero-Colon R, Mendez-Carreno L. Critical Urologic Skills and Procedures in the Emergency Department. Emerg Med Clin North Am 2013; 31(1):237-60.
- 6. Yang C Jr, Song B, Liu X, et al. Acute Scrotum in Children: An 18-year Retrospective study. Pediatr Emerg Care 2011; 27(4):270-4.