

Torsion of Undescended Testis: A Diagnosis Not to be Missed

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Undescended testis (UDT) is found in 3% to 5% of newborn boys [1,2]. Along with the risk of infertility and germ cell tumor development [3], UDT is also prone to injury and appears to be at 10 times higher risk for torsion compared to the normally descended testis [4,5]. The mechanism of UDT torsion is not clearly understood but it has been postulated that the lack of anatomic fixation of the gonads in the scrotum, abnormal contractions of the cremasteric muscles and polar attachment of gubernaculum allow the testes a degree of freedom to rotate, predisposing to torsion [6]. The aim of the present study was to increase awareness among emergency physicians regarding torsion of undescended testis.

We present a case series of four children with torsion of UDT operated at our department of Pediatric surgery, from January 2013 to December 2017. Mean age at the time of surgery was 9 years (range 3 to 10 years). All patients presented with sudden onset of groin pain and inguinal swelling. There was no history of trauma, change in bowel habits or genitourinary symptoms prior to the onset of the pain. Physical examination disclosed a painful inguinal mass, which was firm and no reducing with an empty ipsilateral hemiscrotum in all cases. Doppler ultrasound was performed before surgical exploration in all cases showing no vascular flow within the UDT in 2 cases and an edematous testis in the others two cases.

Emergency inguinal exploration was performed in all cases, and an infarcted testis was found in one case (Figure 1). Orchiectomy of the necrotic testis was done. In the others 3 patients, testes were preserved and orchiopexy was performed. Mean duration of symptoms at time of surgery in the orchidopexy group was 6h (range 3 to 10h). The patient who underwent orchiectomy was referred to our department 24h after the onset of symptoms. From the three patients treated by orchiopexy, one patient developed a testicular atrophy after a mean follow up of 24 months.



Figure 1: Per-operative view showing a necrotic undescended testis.

The diagnosis of torsion of a UDT should be considered in every child presenting with sudden painful inguinal mass with an ipsilateral empty hemiscrotum [6]. Diagnosis can be more difficult because it can mimic several emergencies such as acute abdomen, incarcerated inguinal hernia and inguinal lymphadenitis [7]. This case emphasizes the need for a proper abdominal, inguinal, and genitourinary examination. A Doppler ultrasound may help in diagnosis but surgical exploration remains the preferred method of investigation in probable cases [1,8].

Bibliography

1. Singal AK, *et al.* "Undescended testis and torsion: is the risk understated?" *Archives of Disease in Childhood* 98.1 (2013): 77-79.
2. Pettersson A, *et al.* "Age at Surgery for Undescended Testis and Risk of Testicular Cancer". *New England Journal of Medicine* 356.18 (2007): 1835-1841.
3. Moore CP, *et al.* "Cryptorchid Testicular Torsion". *Pediatric Emergency Care* 27.2 (2011): 121-123.
4. Guta D, *et al.* "Acute abdominal pain: the importance of genital examination". *Acta Chirurgica Belgica* 111.6 (2011): 398-399.
5. Sheref YM, *et al.* "Case report: torsion of a cryptorchid testicle in an infant". *Emergency Radiology* 18.6 (2011): 487-489.
6. Zilberman D, *et al.* "Torsion of the cryptorchid testis--can it be salvaged?" *Journal of Urology* 175.6 (2006): 2287-2289.
7. Naouar S, *et al.* "Testicular torsion in undescended testis: A persistent challenge". *Asian Journal of Urology* 4.2 (2017): 111-115.
8. Geng J-H and Huang C-N. "Torsion of undescended testis: Clinical, imaging, and surgical findings". *Urological Science* 25.1 (2014): 31-34.

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