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Gangrene of the Testis due to testicular torsion

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Abstract
Acute scrotum is a common surgical emergency in adolescent and young males with testicular torsion and epididymo-orchitis being the two most common causes. Early clinical diagnosis and use of investigation like Doppler of scrotum is essential in differentiating these two conditions. We report a case of 14 year old boy who had presented to us with right scrotal swelling of four days duration with fever. This patient was found to have gangrene of the testis due to torsion that was neglected by the patient and the family.

Keywords: testis, torsion, orchidopexy, orchiectomy

Introduction

Torsion of the testis is a surgical emergency wherein there is a rotation of the testis around the spermatic cord resulting in occlusion of gonadal blood supply [1, 2, 3, 4]. It is one of the common emergencies presenting as acute scrotum [1, 2]. If the torsion is not relieved then it can lead to testicular necrosis and atrophy [1, 2, 3]. This condition affects young males with an annual incidence of 1 in 4000 [5, 6]. The diagnosis is often made with history and clinical examination [1, 2]. This condition was first reported in 1840 by Delasiauve [7]. We report a case of testicular torsion with a delayed presentation to us.

Case Report

A 14 year old boy presented to us with a history of swelling of the right scrotum from 4-5 days. He had a severe pain in the right testis 5 days ago while playing cricket following which he was taking bed rest. He had visited a nearby clinic the next day for which he was managed conservatively. From last 2 days he observed the increase in the size of the scrotum but there was no pain. He also gave history of fever since 1 day. There was no history of nausea, vomiting or dysuria. On examination, we found a large non-tender swollen testis which was higher compared to the normal left testis. An urgent ultrasound of the scrotum was done, which showed no flow in the right testis with fluid collection in the scrotum. A diagnosis of testicular torsion was considered and patient posted for emergency scrotal exploration. It was noted that the testis was completely gangrenous (Figure 1) due to torsion with hemorrhagic fluid collection. He underwent right orchiectomy. He also underwent left orchidopexy.

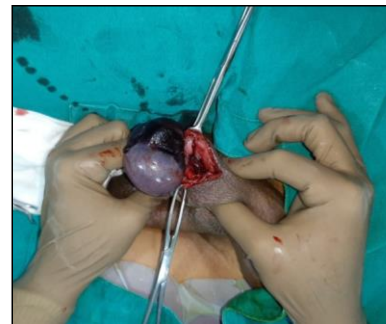

Fig 1: showing gangrenous testis due to torsion

Discussion

The testicular torsion, which is also known as the torsion of the spermatic cord, is a common cause of acute scrotum in adolescent and young adults [7, 8]. Although it can occur spontaneously without a known cause, several anatomical abnormalities have been described like bell-clapper deformity, testis in horizontal position, long mesochium, etc [2, 3, 6, 8]. It is also stated that patients with undescended testis are 10 times more at risk of torsion [3]. The most common clinical features include presence of red swollen scrotum with tender testis [1, 7]. Few patients can give precipitating factors like exercise, playing, coughing, trauma, etc [3]. A differential diagnosis of epididymo-orchitis is often considered although it can be differentiated with certain signs [2, 7]. Prehn's sign is one such sign wherein on elevation of the scrotum if the pain increases then testicular torsion is considered and if pain decreases epididymo-orchitis is considered [3, 7, 9].

Another sign described is Angell's sign wherein the opposite testis is found to lie horizontal [9]. Doppler ultrasound of the scrotum is extremely helpful in diagnosing torsion, although in around 16% of the cases, the Doppler remains unclear [2, 10]. In such cases, an urgent scrotal exploration is advised. Timing is essential because if the torsion is not reversed within 6 hours there are likely chances of testicular death [5]. Fixing of the opposite testis is often advisable because of possible presence of bilateral anatomical abnormality [2]. It can be done in same time or at a later stage. Certain clinicians have attempted manual detorsion if patient presents immediately [11].

Conclusion

Testicular torsion is an acute scrotal emergency which should be recognized as early as possible to save the testis from undergoing necrosis. Once the testis turns gangrenous then patient should undergo orchiectomy. Orchidopexy should be done to the opposite testis.

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