

CASE REPORT

TORSION OF APPENDIX OF TESTIS

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An case of torsion of the appendix of testis is described in a 10 years old boy. He presented with sudden onset of severe pain in the left testis of 3 days duration. Emergency exploration of the left testis revealed a gangrenous appendix of the left testis. The appendix of the testis was excised and the wound was closed. The patient made a smooth post-operative recovery.

KEY WORDS: torsion, appendix testis, exploration, gangrene

INTRODUCTION

In 1913, Ombredanne mentioned about the torsion of the appendix testis, but the first case report was published in 1922 by Colt. It was schematically illustrated by Mouchet (1923) and Dix (1931) in a manner that is still valid today.

Torsion of appendix of testis is not a rare clinical entity. Majority of these cases present with unilateral scrotal swelling and are managed conservatively. Rarely a definitive diagnosis is reached. Surgical intervention is not only useful in making the final diagnosis but excision of the necrotic appendix of testis can also be contemplated. The main aim of this case report is to highlight the importance of operative management in torsion of appendix of testis.

Testicular and epididymal appendages were once considered anatomical anomalies; however some studies report that these structures are present in the majority of normal individuals¹. When these structures are too long or pedunculated, they can twist around their own axis, causing acute scrotum mimicking testicular torsion. Even tumours have been reported in these appendages.¹ It is generally agreed that any male suspected of having a testicular torsion requires immediate surgical exploration. However differentiating testicular torsion from epididymitis or torsion of the appendix testis, especially in young children, may prove very difficult.

CASE REPORT

A 10 years old boy reported to the surgical outdoor with three days history of sudden onset of severe pain in left testis. Earlier he had received analgesics and antibiotics from a local doctor. There was no history of trauma, insect bite or any urinary complaint. The pain was localized in the left scrotum. On examination he was afebrile. There was obvious swelling in the left hemiscrotum (Figure-1) and tenderness in the left testis. The left testis and epididymis were not separately palpable but the spermatic cord was normal. The right scrotum, testis

and epididymis were normal. The pain could not be relieved on elevation of the testis (Prehn's sign).

The complete blood count and urinalysis did not reveal any abnormality. Ultrasonography of the testes showed mild fluid around the left testis. Keeping in mind the possibility of testicular torsion and the torsion of testicular appendages, exploration of left testis was performed under general anaesthesia. This revealed torsion and gangrene of the appendix at the superior pole of the left testis (Figure-2). The gangrenous tissue was excised (Figure-3) and the wound was closed (Figure-4). The patient made a smooth post-operative recovery and was discharged on the second post-operative day.

DISCUSSION

The testicular appendix is a remnant of the upper portion of the paramesonephric duct (Müllerian duct), and is also known as sessile hydatid of Morgagni.² The portion of mesonephric duct, cranial to the testis can form the epididymal appendix, also known as the pedunculated hydatid of Morgagni. In Bologna (1703), Morgagni observed the first hydatid on the caput epididymis. He described ten hydatid cases of the testis and epididymis producing, in his opinion, the fluid of hydrocoeles. Other vestigial structures derived from this portion of the mesonephric duct are the 'Haller's organs', located in the fissure between the testis and the epididymis, consisting of a superior and inferior aberrant vessels; and the 'Giraldes' organ', also called the paradidymis or innominate body, located in the distal portion of the spermatic cord.³

Amongst the patients presenting with acute scrotum, testicular torsion is the most common diagnosis in the prepubertal male.⁴ In a study by Knight and Vassy⁵ of acute scrotal pain in 395 boys ranging in age from 30 days through 17 years, the frequencies of diagnoses were: testicular torsion (38%), epididymitis or orchitis (31%) and torsion appendix testis (24%). Lewis *et al*⁶ reported torsion appendix testis in 46% of acute scrotal pain.



Figure-1: Swelling over the left hemiscrotum



Figure-2: Gangrenous appendix of testis



Figure-3: The excised gangrenous appendix of testis



Figure-4: Wound closed with silk sutures

The torsion of appendix testis usually occurs in children aged 7–14 years. The condition rarely

presents in adulthood. The pain is usually acute but may develop over time. It is located in the superior pole of the testis. Some patients may endure pain for several days before seeking medical attention. Systemic symptoms and urinary complaints are absent. On examination the scrotum may be erythematous and oedematous. The cremasteric reflex is usually present. The presence of cremasteric reflex is the most valuable clinical finding in ruling out testicular torsion and the absence of this reflex increases the suspicion of testicular torsion.⁷ Tenderness may be absent; if present then it is localized in the upper pole of the testis. The presence of paratesticular nodule at the superior aspect of the testis, the characteristic blue-dot appearance, is pathognomonic for this condition. It is present in only 21% of cases. The combination of blue-dot sign with clear palpation of an underlying normal, non-tender testis allows for the exclusion of testicular torsion on clinical grounds alone. Synchronous bilateral torsion of appendix testis can also occur.⁸ Ultrasonography may show a lesion of low echogenicity with a central hypoechoic area. If the oedematous appendix and the head of the epididymis are close together, the condition will have the ‘Mickey Mouse’ appearance on the transverse lie. Colour Doppler sonograms show normal flow to the testis, with an occasional increase on the effected side possibly due to inflammation. The identification of a testicular appendage larger than 5.6 mm is suggestive if torsion.⁹ It has an 89% sensitivity and 100% specificity for testicular torsion.¹⁰ In testicular appendix torsion, radionuclide imaging may show a hot-dot sign due to an area of increase tracer uptake.

The suspected cases of torsion of appendix of testis are usually treated with rest, observation, analgesics and scrotal support. Certain cases may not be diagnosed properly as they mimic epididymitis, however they are treated on the same lines and give a satisfactory response. Presently surgical intervention is recommended in only doubtful cases, but we emphasize upon the benefits of prompt surgery, firstly excision of the necrotic tissue can be contemplated, secondly a definitive diagnosis can be reached and thirdly a satisfactory recovery of the patient can be achieved.

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