

Acute Appendicitis Masquerading as Intra-abdominal Testicular Torsion: A Case Report and Review of Literature

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Abstract: Cryptorchidism is a well known predisposing factor for testicular malignancy. Due to the habit of missing the examination of external genitalia, torsed intraabdominal testis is very rarely considered in the differential diagnosis of acute appendicitis, especially in the busy settings. The clinical history and imaging may not clarify a confusing clinical picture. There may be a possibility of acute appendicitis in a suspected case of right intra-abdominal testicular torsion. This case report is about a case of acute appendicitis which presented with features of intra-abdominal torsion testis in a 30-year-old man who was aware of the absence of the right testis within the right hemiscrotum.

Keywords: Abdominal Cryptorchidism, Appendicitis, Orchiectomy

INTRODUCTION

Cryptorchidism is a well known predisposing factor for testicular malignancy. 1-4% of full-term neonates and up to 45% of preterm neonates have undescended testis (UDT) [1]. Orchiopexy in UDT is usually recommended at the age of 9 months [2]. There is increased susceptibility to torsion in UDT, though this is a rare condition, but a high clinical suspicion is required for diagnosis. The conventional imaging modalities like ultrasound are not entirely reliable for assessment of torsion in UDT.

CASE REPORT

A 30-year-old man, married father of two children, presented with history of first episode of right lower abdominal pain since morning, anorexia and vomiting. The symptoms were not relieved by the conservative management. The bowel and bladder habits were normal.

On examination patient was febrile, pulse rate 92/min, regular, no lymphadenopathy. There was tenderness in right iliac fossa and hypo gastric region. Liver and spleen was not palpable. Right side testis was absent. Rectal tenderness was present on the right. Routine blood investigation revealed normal count. The urinalysis revealed no abnormal findings. Sonogram of abdomen and scrotum demonstrated a well-defined iso to hyper dense mass of size 3.1cm × 2cm × 1cm in size lying superior and anterior to the bladder and absent right testis and normal left testis. The possibility of acute appendicitis could not be ruled out.

A diagnosis of right intraabdominal torsion testis was made and emergency operation was performed. Findings at operation revealed an inflamed appendix with small size intraabdominal testis (Fig. 1).

Appendectomy and prophylactic orchiectomy were performed. The patient had an uneventful postoperative course and was discharged on the third day post-operation.

The histology of the testis revealed features of severe testicular atrophy without evidence of malignancy. The histology of the vermiform appendix revealed no signs of inflammation. The levels of alpha fetoprotein and beta HCG were within normal limits.



Fig. 1: Intra operative picture showing inflamed appendix (hollow arrow) and atrophic testis (solid arrow)

DISCUSSION

UDT is associated with an increased risk of testicular malignancy and infertility [1-2]. Also, intra-abdominal testes have greater risk of developing malignancy as compared to inguinal UDT [3]. Torsion in the UDTs has been reported to be 13 times higher as compared to the normal testes in various studies [4-5]. First reports of torsion of UDT came from Delasiauve in 1840, then Curling in 1857, followed by Ormond in 1923 [6]. Such manifestation can occur more frequently in neonates where acute appendicitis can be incarcerated into the hernia, presenting as a scrotal mass. However, such presentation is very rare in adults. In our case, a 30-year-old male with empty right hemi scrotum presented with pain in the right iliac fossa and hypogastrium masquerading as torsion of intra abdominal testis. On opening the abdomen by gridiron incision, it was found that the culprit was acute appendicitis and not the undescended intra abdominal testis. UDT can undergo torsion perhaps due to abnormal contractions of cremasteric muscles and relatively greater broadness of testis than its mesentery [7, 8]. However, there is no exact mechanism of torsion clearly described. Srouji and Buck [9] reported a 12-day-old infant with acute appendicitis in an incarcerated inguinal hernia presented as scrotal mass. They mentioned three neonates with hernial appendicitis presenting as scrotal sinus or fistula.

CONCLUSION

Diagnosis of an intra-abdominal testicular torsion is rare. The clinical history and imaging may not clarify a confusing clinical picture. There may be acute appendicitis in case of possibility of right intra-abdominal testicular torsion.

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