

A Rare Case Report of Undescended Testis: Both on One Side

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Undescended Testis (UDT) is a medical term that is used for any testis which is not in its normal place (bottom of the scrotum). UDT can be classified as unilateral and bilateral. Unilateral UDT is more common than bilateral UDT. There is a very rare condition in which both testicles are on the same side and have not descended. We report in this article a 3 years old boy presenting with a chief complaint of bilateral testicular mass absence. Diagnostic evaluation revealed absent testes in the scrota. Exploring laparoscopy was performed and a rare case of UDT was diagnosed, in which both testicles were on the left side of the pelvis with two separate spermatic cord. The shorter spermatic cord was fixed on the left scrotum and the longer one was fixed on the right side. The testes were normal in follow up examinations.

Keywords: undescended testis; crossed testicular ectopia; cryptorchidism

INTRODUCTION

The Normal location of the testis is in the bottom of the scrotum.⁽¹⁾ Undescended Testis (UDT), cryptorchidism, retention testis and male descending testis are medical terms that are used for any testis which is not in its normal place.⁽²⁾ UDT is a common male genitalia anomaly⁽³⁾ by an incidence of 1-3% in term neonates and 30% in preterm neonate.^(3,4) UDT pathophysiology is not understood completely but variable genetic and hormonal factors have been suggested.^(2,5) An important complication of UDT is testicular malfunction especially in spermatogenesis and testicular cancer.⁽²⁾ UDT is categorized based on congenital or acquired, palpability, and unilateral or bilateral state.⁽¹⁾ UDT can be classified as unilateral and bilateral. Unilateral UDT is more common than bilateral UDT by a rate of 4:1.⁽⁶⁾ There is a very rare condition in which both testicles are on the same side and have not descended.⁽⁷⁾ We report in this article one of these rare cases, in which both testicles were on one side of the pelvis and not descended. Based on our searches on MEDLINE, and PubMed and GoogleScholar only one similar case was reported by Ebrahimi in 2010.

CASE REPORT

A three-year-old boy presented to our surgery clinic by a chief complaint of testicular absence. He was admitted for more diagnostic evaluation and therapeutic management. Patient's mother had no history of drug usage or X-ray radiation during pregnancy. She had another son without any medical problems. Parents were not



Figure 1. No testis in the right side of pelvic in laparoscopic view. Arrow shows right inferior epigastric artery

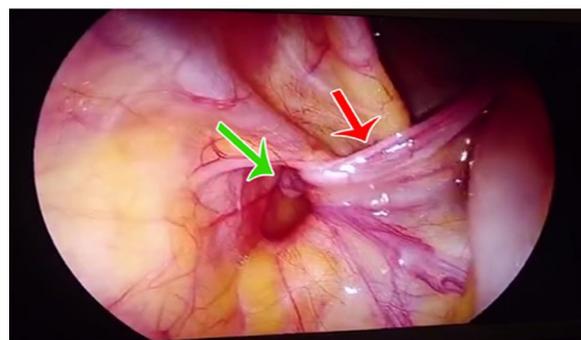


Figure 2. Both spermatic cord on the left side of the pelvis. Both vas deferens inters into the left inguinal canal (Red Arrows). And left testis head is visibl in the proximal of canal (Green Arrow)

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Figure 3. Two separate spermatic cord of each undescended testis. The green arrow shows the right vas deferens and the red one shows the left vas deferens.

relatives. Allergic and drug history were negative. On physical examination, he had no palpable testes in either scrotum. Other parts of the physical examination were normal. Ultrasonographic evaluation of the abdomen, pelvic and scrota was performed. The radiologist reported bilateral empty scrota and no specific mass in the pelvis. Multiplanar and multisequential Magnetic Resonance Imaging (MRI) of the abdominopelvic area was performed to get more diagnostic data (**Figure 1**). The report of the MRI revealed an open left inguinal canal with the left testis adjacent to its superficial ring and an undetectable right testis. No other specific findings were noted.

Biochemical evaluation including complete blood count (CBC) and coagulative tests were normal. After medical consultations were obtained, the patient underwent laparoscopic surgery to check for the possible existence of the testes. Entrance site was from the left inguinal. No testis was found on the right side (**Figure 2**). After more probing, two separate spermatic cords were found on the left side (**Figure 3**) and both testes were seen after applying different maneuvers. The left testis was observed in proximal part of the left inguinal canal and the right was seen in the abdomen. The right duct deferens was attached to the right testis and was free intra-abdominally and the left one was attached to the left testis and continued to the proximal of the left inguinal canal. Both had separate arteries and veins.

The testes were released from the abdominal wall. Unlike the case reported by Ebrahimi in 2010, our case had two separate spermatic cords (**Figure 4**). After release, both testis were descended into the scrotum via the left inguinal canal due to right spermatic cord shortness. The left testis was fixed in the left scrotum and the right testis was fixed in the right scrotum after passing the median raphe.

The longer spermatic cord belonged to the right scrotum and the shorter one was fixed on the left side. In the follow-up visits and Doppler ultrasonography evaluation, testis size and the position was normal and testis remained viable at weeks 1, 4, and 8 and 16 after the operation.

DISCUSSION

UDT is the most common disease in the field of children urology. It is often congenital but not always.⁽⁸⁾ Although UDT is a common condition,; crossed testic-

ular ectopia (CTE) is a rare condition.⁽⁷⁾ CTE is defined as migration of one testis towards the opposite inguinal canal. In CTE, both testes descend through a single inguinal canal resulting in an ipsilateral inguinal hernia and contralateral cryptorchidism. Definite diagnosis is always made after operation.⁽⁹⁾ Three different types of CTE are defined in the literature including: I. associated with an inguinal hernia alone; II. associated with persistent mullerian remnants; III. associated with other anomalies without Mullerian remnants^(7, 9). Here, we reported a very rare case of UDT with CTE, with two separate spermatic cords. Both testes were fixed into the scrota and were kept alive successfully.

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