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Case Report

A case report: the undescended testis present with inguinal hernia in adolescence, how can be diagnosed and treated early?

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ABSTRACT

Undescended testis or cryptorchidism describe as one or more testicles are missing from the scrotum. Cryptorchidism may occur on one or both sides but more commonly affects the right testicle. To make the diagnosis, testicular examination followed by a laparoscopy to check for testes that hard to feel on physical examination. To avoid pathological alterations, surgical treatment for UDT should be administered prior to two years. A 16-year-old male patient come to the surgical department of Prima Medika Hospital complained of a lump in the right thigh fold and a non-palpable right testicle for 2 weeks and was unaware of the existence of his right testicles. On the abdominal examination, a non-reducible tumor was discovered during examination in the right groin with no lymphadenopathy in the left inguinal and left testicles. The testicular ultrasonography present, the right inguinal-proximal testis is undescended. Based on the patients complain, orcidopexy dextra with herniotomy was performed. In underdeveloped nations, UTD is common in adulthood, and the late identification of UDT might be problematic. Therefore, early diagnosis and immediate treatment are essential to prevent the complication and pathologic alterations that leading to subfertility and malignant transformation.

Keyword: Undescended testis, Cryptorchidism, Pathological alterations

INTRODUCTION

Cryptorchidism is the inability of one or both testes to descend into the scrotum.[1] Testicular examination is used to make the diagnosis, occasionally followed by a laparoscopy to check for testes are hard to feel on physical examination. Only seldom are imaging investigations necessary.[1] Birth diagnosis presentation is about 80% of undescended testes. The rest are identified in early adolescence or throughout infancy.[1] These often result from an ectopic gubernacular attachment and become noticeable during a somatic growth spurt.[1] The gold standard in management for cryptorchidism in affluent nations is early anatomical rectification with orchidopexy.[2] However, in underdeveloped nations, it is common for these individuals to show in adulthood, and the late identification of UDT might be problematic.[3] In order to effectively treat UDT in adolescents with hernia inguna, early diagnosis and immediate treatment are essential. This case study wants to discuss an adolescent UDT instance and analyze it using pertinent theoretical ideas.

CASE REPORT

A 16-year-old male patient come to the surgical department of Prima Medika Hospital complained of a lump in the right thigh fold and a non-palpable right testicle for 2 weeks. He was unaware of the existence of his right testicles until he found the unsimetrical position between his left and right testicles. The patient denies fever, nausea, vomiting, and diarrhea. He had no history of difficulty in voiding or constipation. He had no respiratory or cardiac illnesses or comorbidities. He had no history of smoking. He denied any regular medication use.

On physical examination, the patient was conscious (Glasgow coma scale E4M6V5) with a blood pressure of 120/80 mmHg, heart rate of 88 beats per minute, respiratory rate of 18 breaths per minute, oxygen saturation of 98%, body temperature of 36.6°C. On the abdominal examinantion, a non-reducible tumor was discovered during examination in the right groin. There is no lymphadenopathy in the the left inguinal and left testicles. Laboratory investigations revealed a complete blood count is normal.

According to testicular ultrasonography findings, the right inguinal-proximal testis is undescended. Based on the patients complain, orcidopexy dextra with herniotomy was performed. In figure 1 and figure 2 performed along the inguinal ligament, an oblique or skin crease incision is made. The Muskulus obligus abdominis eksternus (MOE) aponeurosis is made apparent by further deepening the incision. The testicle is severed from the surrounding tissue, separated from the MOE aponeurosis, and removed from the abdominal incision while still attached to the spematic cord. The spermatic funiculus is luxated for hernias after which the hernia sac is located. The hernia sac is sliced transversely, and the hernia's contents are placed into the abdominal cavity. After a herniotomy and ligation of the hernia sac at the level of the preperitonium fat, the bleeding is controlled and the surgical site is gradually closed.

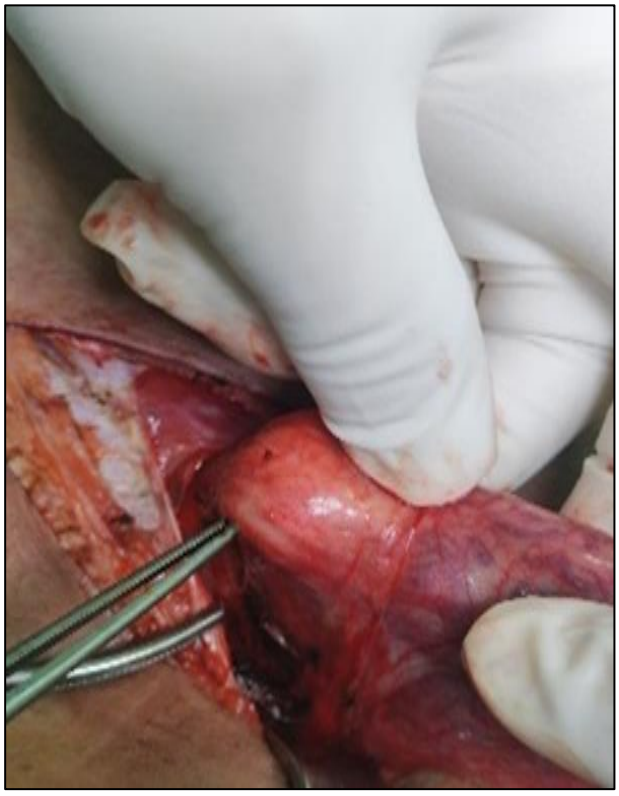

Figure 1: Incision in the right inguinal region, we saw the testicle in the right hernia sac; size of right undencensus testis similar then left testis. So, we do orchidopexy right testis.

Figure 2: With three tight hecting at facia grotha.

DISCUSSION

One or more testicles are missing from the scrotum in cases of undescended testis (UDT), also known as cryptorchidism, which is a common congenital abnormality affecting the male genitalia. If the testicle is ectopic, it may extend as far as the pre-pubic region or perineum. The missing testicle can also be located along the inguinal canal.[4]

The testes typically begin to form at 7 to 8 weeks of pregnancy and stay cephalad to the internal inguinal ring until 28 weeks, when they start to descend into the scrotum under the guidance of condensed mesenchyme (the gubernaculum). Beginning of descent is mediated by hormonal, physical, and environmental variables, such as maternal exposure to estrogenic or antiandrogenic drugs, androgens, mullerian-inhibiting factor, gubernacular regression, and intra-abdominal pressure.[1]

True undescended testicles are still present in the inguinal canal following their natural course of descent or, less frequently, in the retroperitoneum or abdominal cavity. A testis that ordinarily descends through the external ring but diverts to an atypical place and resides beyond the normal route of descent (for example, suprapubically, in the superficial inguinal pouch, within the perineum, or along the inner surface of the thigh) is said to be ectopic.[1]

To determine the placement and development of the testicles, patient should undergo a testicular examination

at birth and every year after that.[1] The UDT situation must be differentiated as a physician between palpable and non-palpable testis. Other words used to characterize the location of the palpable testis include ectopic, canalicular, extra-canalicular, suprapubic, and peeping (sliding in and out of the internal inguinal ring).[5]

Physical examination is used to make the diagnosis of cryptorchidism. When an inguinal hernia and non-palpable testis are present, the diagnosis of cryptorchidism should be taken into account. Though symptoms may vary from one to patient. The clinical appearance of an inguinal hernia, however, differs according on the contents of the hernial sac and the extent of the herniation. The clinical examination is frequently unreliable due to the disorder's variable appearance.[6]

To avoid these pathological alterations, surgical treatment for UDT should be administered prior to two years.[7] UDT among young adults and teenagers is therefore infrequent. A surgical orchiopexy is the recommended course of action for a palpably undescended testis. During this procedure, the testis is moved into the scrotum and sutured into place. A testis is relocated into the scrotum if it is detected during abdominal laparoscopy for a nonpalpable undescended testis. The tissue is excised if it is atrophic (often the result of prenatal testicular torsion).

The risk factors for pathologic alterations leading to subfertility and malignant transformation in the undescended testes include torsion, hernia, trauma, and pathologic changes.[9] Therefore, it is crucial that therapy be administered and at the appropriate time.

Reduced fertility, increased risk of cancer, testicular torsion or trauma, relationship with inguinal hernias, and psychological or body image problems are some of the factors that urge earlier surgical intervention for UDT.[5]

Most instances of adolescent UDT were discovered for a variety of reasons, which caused treatment to be delayed. The most frequent causes were a doctor's failure to diagnose an illness at an early stage, the parent's ignorance about the need for surgery and the difficulties that go along with it, and the parent's indifference. The primary factors in the delayed diagnosis and treatment of UDT were the physician's late diagnosis and the parents' lack of understanding.[8] Therefore, this case report would help to identify UDT early, especially for general practitioners, then there will be no delayed on the treatment.

CONCLUSION

In younger children, inguinal hernia is frequently present together with cryptorchidism, which is the inability of one or both testes to descend into the scrotum. Physical examination is used to make the diagnosis of cryptorchidism. To avoid these pathological alterations, surgical treatment for UDT should be administered prior to two years. Abdominal laparoscopy or surgical orchiopexy is the method of therapy. Whether or not the patient is found to have UDT, a diagnosis must be made or identified early. This can lessen the chance of issues including hernias, infertility, and cancer from the testicles not descended into the scrotum.

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REFERENCES

1. MDS Manuals. Cryptorchidism (Undescended Testes). 2022. Available at: https://www.msdmanuals.com/professional/pediatrics/congenital-renal-and-genitourinary-anomalies/cryptorchidism. Accessed on 15 May, 2023.
2. Bradshaw CJ, Corbet-Burcher G, Hitchcock R. Age at orchidopexy in the UK: has new evidence changed practice? J Pediatr Urol. 2014;10(4):758-62.
3. Sinha CK, Vinay S, Kulkarni R. Delayed diagnosis for undescended testes. J Ind Pediatr. 2008;45(6):503.
4. National Library of Medicine. Cryptorchidism, 2022. Available at: https://www.ncbi.nlm.nih.gov/books/NBK470270/. Accessed on 15 May, 2023.
5. Braga LH, Lorenzo AJ. Cryptorchidism: A practical review for all community healthcare providers. Can Urol Assoc J. 2017;11(1-2):S26-32.
6. Kassir R, Tarantinob E, Lacheze R, Brek A, Di Bartolomeo A, Tiffet O. Management of Spigelian hernia caused by necrobiotic fibroma of theuterus in a pregnant woman. Int J Surg Case Rep. 2013;4:1176-8.
7. Adesanya OA, Ademuyiwa AO, Elebute OA, Ojewola R, Bode CO. The undescended testes in children: A prospective epidemiological study. East and Central Afr J Surg. 2013;18(2):45-9.
8. Shiryazdi SM, Modir A, Benrazavi S, Moosavi N, Kermani-Alghoraishi M, Ghahramani R. Causes of delay in proper treatment of patients with undescended testis. Iran J Reprod Med. 2011;9(1):37-40.
9. Gates RL, Shelton J, Diefenbach KA, Arnold M, Peter SD, Renaud EJ et al. Management of the undescended testis in children: An American pediatric surgical association outcome and evidence based practice committee systematic review. J Pediatric Surg. 2022;57(7):1293-308.

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