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Case Report

Vas Deferens Duplicity

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Abstract

Vas deferens duplicity is a rare congenital anomaly, the tubes that transport sperm from the epididymis to the ejaculatory duct. The condition is usually asymptomatic and is often discovered incidentally during surgery or imaging studies.

Case Report: A 3.5-year-old boy with undescended right testicle underwent surgery and two vas deferens were found in the spermatic cord. Follow-up appointments showed successful treatment.

Discussion: This report highlights the exceptional occurrence of duplicated vas deferens in a child. Existing classifications categorize this case as type I (duplicated vas deferens without extra testicles). All previously documented cases involved adults.

Conclusion: Duplicated vas deferens is a rare anomaly that can be missed during surgery. Recognizing this variation is crucial to prevent complications during procedures in the groin area.

Keywords: Vas deferens duplicity; Testicular ectopia; Case report

Introduction

The vas deferens is an extension of the epididymis. It originates as a muscular tube at the end of the epididymal tail [1].

Starting at the upper end of the testis, the vas deferens ascends through the posterior portion of the spermatic cord and passes through the inguinal canal to reach the pelvic area. Running retroperitoneally within the pelvis, it eventually combines with the seminal vesicle's duct to create the ejaculatory duct [2].

In children, deferential duplicity is most often discovered during orchidopexy, as part of a procedure to cure testicular ectopia, inguinal hernia or varicocele [2].

the aim of this work is to report the case of a child operated on in our department for the cure of testicular ectopia and in whom a deferential duplicity was discovered.

Case Report

The patient was 3 and a half years old, and had a right-side cryptorchidism with an inguinal testicle. The patient underwent surgery to correct the cryptorchidism. While dissecting the components of the spermatic cord, two vas deferens were identified. The first vas deferens was of regular size and connected to the spermatic vessels, whereas the second one was smaller in size, detached from the vessels, and free-floating. Our intraoperative decision was to preserve the two-vas deferens and the testicle was lowered to the scrotum.

the patient was seen in a control in one month then in 3 months and the testicle was of normal size, intra-scrotal and painless with good healing.

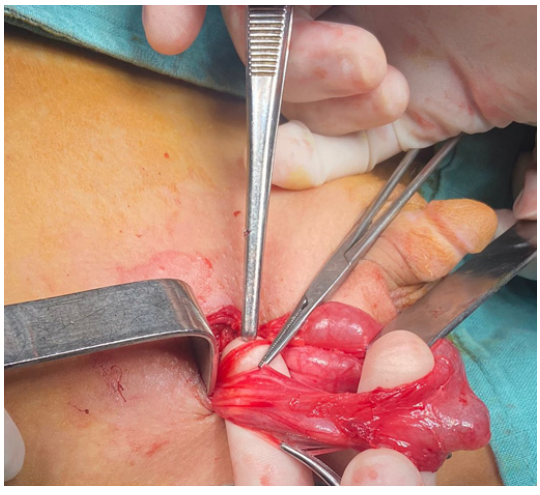

Figure 1: Double vas deferens identified during right spermatic cord dissection for cryptorchidism in a 3years old patient.

Discussion

Congenital vas deferens anomalies are extremely uncommon, with an estimated incidence being about 0.05% [3,4].

Generally, these abnormalities are referred to as absent, ectopic, or atretic vas deferens [5].

Instances of duplicated vas deferens have been infrequently documented in literature and are commonly identified during inguinal exploration [6].

Liang et al. proposed a classification system to delineate duplications of the vas deferens into three types:
(a) type I: involves duplicated vas deferens within the spermatic cord without polyorchidism;
(b) type II: comprises multiple vas deferens along with polyorchidism;
(c) type III: encompasses false duplication, which includes scenarios like "double" vas deferens or ureter draining into the ejaculatory system.

Consequently, our case falls under the classification of type I vas deferens duplication.

All cases reported in the literature describe deferential duplicity in adults, while no cases have been reported in children. While in our department, we detected a deferential duplicity in a 3-year-old child.

Conclusion

In summary, vas deferens duplication is an uncommon discovery, often not adequately reported or acknowledged. Failing to identify this variation can result in vas deferens injury during inguinal procedures and may also lead to unforeseen outcomes following vasectomy.

Competing interests: The authors declare no competing interest.
Author Contributions: All authors contributed to the creation of this article. The authors also declare that they have read and confirmed the final version of this article.

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