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Complete Testicular Epididymal Dissociation in Cryptorchid Testis: A Rare Case Report and Review of the Literature

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ABSTRACT

We report a case of a complete testicular epididymal dissociation discovered during surgery for cryptorchidism. The epididymis was found in the scrotum and the testis in the inguinal canal. This malformation is very rare, it has been reported sporadically, the incidence in patients with cryptorchidism may be higher. Epididymal anomalies seem to play an important role in the emergence of fertility disorders.

Introduction

Complete dissociation of the testis and epididymis is rare congenital malformation. It has been reported sporadically, the incidence in patients with cryptorchidism may be higher. The orchidopexy remains the standard treatement.

Case presentation:

- A healthy 4-year-old boy was referred with a non palpable left gonad.
- Examination showed a normal right testis palpable in the right hemiscrotum and an underdeveloped left hemiscrotum with no palpable testis.
- Inguinal exploration was performed through a right transverse incision.
- A normal-appearing testis in inguinal canal was identified; it was normal in size without palpation of a vas deferens, the epididymis was found in the scrotum (Fig 1).
- The cryptorchid testis was mobilized and positioned in the right hemiscrotum with orchidopexy.

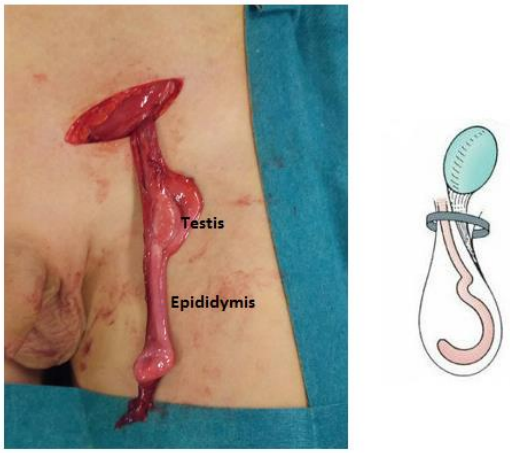

Figure 1. Complete testicular epididymis dissociation.

Discussion:

Complete dissociation of the testis and epididymis is rare congenital malformation [1].

Embryogenesis of the male gonad, epididymis. and vasa deferentia is a complex sequence of events. The testis develops from the medullary sex cords at the genital ridge and ultimately receives its blood supply from the internal spermatic artery.

The epididymis and the vas develop from the mesonephric ducts and the Wolffian ducts, respectively, and ultimately receive their blood supply from the internal iliac artery.

Union is finally accomplished by canalization of the mesonephric ducts and the rete testis [2].

The first reported case of dissociation of the testis and epididymis was described by Lazarus and Marks in 1947 [3].

Turek et al., in 1994 described the characteristics of the epididymis malformations into six types as follows: Type 1- Head and tail attachment with a “looped”body (84%); Type 2- Complete attachment to the testis (12%); Type 3- Head attachment only (3%); Type 4-Tail attachment only- Rare (0%); Type 5- Non-fusion (1%); Type 6- Anomalies of ductal patency- Rare (0%) [4].

Epididymal anomalies have been strongly associated with patency of the processus vaginalis and seem to play an important role in the emergence of fertility disorders [5].

When a vas-epididymis complex without an associated testis or spermatic vessels is identified, proximal exploration is warranted. If a proximal or intra-abdominal testis is located, orchidopexy is the standard of care to allow the monitoring of the testis [6].

Conclusion:

All reported cases of a compete testicular epididymal dissociation have been associated with cryptorchidism. As a result of the undescended testicle, all of the patients mandate surgical exploration for orchidopexy, and typically this entity is an incidental finding during operations.

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Conflict of Interests:

The authors declare that there is no conflict of interests regarding the publication of this paper.

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