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Perineal Testicular Ectopia: Case Report and Literature Review

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Abstract

Testicular dystopias are defined by the absence of the testicle in the scrotum. Cryptorchidism is a common presentation in childhood although ectopic testis is very rare. This article reports a case of an inguinal orchidopexy of the ectopic testis on a male patient aged three years and seven months presenting a left testicle located in the perineum.

Keywords: *Cryptorchidism, ectopic testis, surgery, child, orchidopexy.*

Introduction

Testicular dystopias are defined by the absence of the testicle in the scrotum. Undescended testes are a frequent pathology and observed in up to 5% of full-term newborns[1]. When the undescended testicle is located along the normal line of descent it is termed a cryptorchid testicle, which may be palpable or not. The term ectopic testes should be used when the gonad is outside this topography. Ectopic testicles are rare, corresponding to 1% of testicular dystopias[2]. This article reports a case of perineal testicular ectopia in a toddler.

Case Report

Male patient, 03 years and 07 months old, with caregivers stating they had never observed the left testicle in the scrotum in the patient. The patient was born at-term and healthy, without other associated pathologies. On the physical exam he had a hypoplastic hemiscrotum with no palpable gonad on the left side. A nodule was palpable on the left side of the perineum. The nodule had about 3 cm in diameter with elastic consistency, and it was compatible with the left testis. The right testicle was located in its topical position (figures1 and 2).

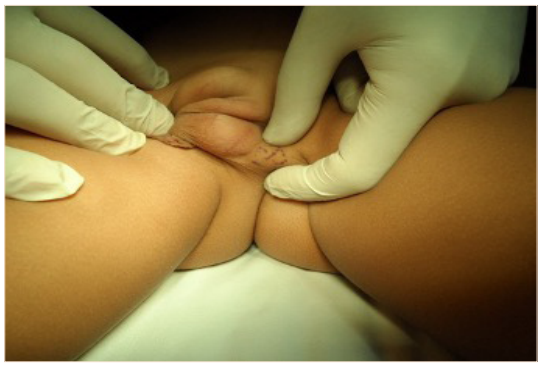

Fig1. *Left testicle palpable in the perineum*

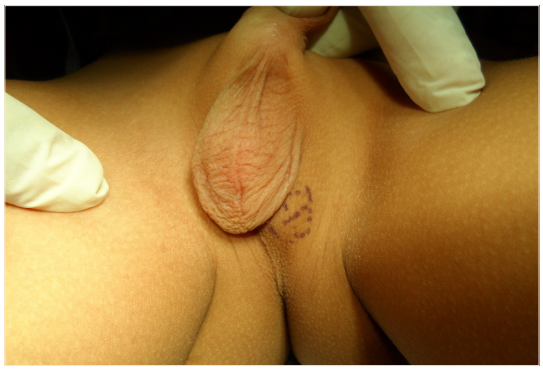

Fig2. *Left testicle observed in the perineum*

Ultrasonography (US) of the inguinal region and scrotum demonstrate an ectopic left testis, located in the perineum. The patient underwent left inguinal orchidopexy and confirmed the ectopic testis located in the perineum. During the surgery, the patient presented no complication and patency of processus vaginalis was not observed (figure 3).

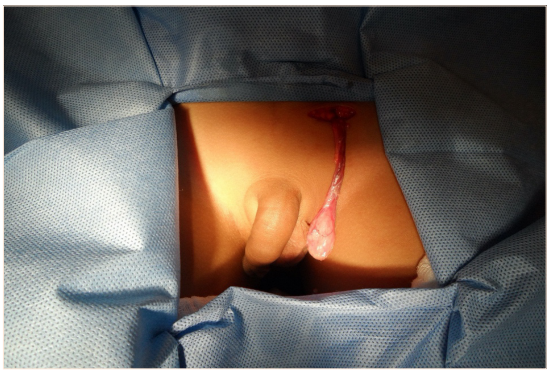

Fig3. *Operative findings*

Follow-up evaluations observed the left testis located in the distal portion of the corresponding hemiscrotum and the volume compatible with the contralateral gonad.

Discussion

Undescended testis is a frequent condition affecting up to 5% of full-term newborns and with an incidence of up to 45% in premature infants[1]. The impossibility of palpation of the testicle in the scrotum defines the diagnosis of cryptorchidism. It is considered the main endocrine disease in male newborns and the most frequent genital tract abnormality in this age group [3]. The testicular migration has two distinct phases: intra-abdominal and canalicular. It is a complex process mediated by hormonal, neural, and mechanical factors. This process is not yet fully understood and the etiology of cryptorchidism is still undefined. Cryptorchidic testicles can be found in any location of the testicular migration line, which extends from the retroperitoneum to the scrotum [4]. When the gonad is outside of the descent line, it is called an ectopic testicle [5].

Testicular ectopia is rare, occurring in about 1% of patients with undescended testis [4]. Ectopic testicles can be located in the pubic-penile region, femoral hiatus, contralateral scrotum (crossed ectopia), and perineal, with the most common being perineal. The etiology of testicular ectopia is still controversial. One hypothesis is whether the obstruction of the secondary external inguinal ring (an anatomical structure distal to the external inguinal ring), when obliterated, avoids the correct testicular migration. Other hypotheses are anomalies of the gubernaculum fixation or problems with the calcitonin gene related peptide (CGRP) that is secreted by the genitofemoral nerve[4].

The diagnosis of testicular dystopias is always clinical. It includes a detailed medical history and physical exam. When the testicle is not palpable in the scrotum, other topographies have to be examined and the possibility of an ectopic gonad should be investigated. As in the case presented, the left testicle could be observed in the perineum. The use of complementary imaging usually is not necessary when there is a palpable gonad [6]. Laboratorial tests and hormonal investigation are required only when sexual differentiation disorders (SDD) are suspected[7].

Every patient with testicular dystopia should be evaluated by a pediatric surgeon for diagnostic confirmation and definition of the appropriate treatment. The child should be referred around the six-month age mark[8]. In premature infants the age has to be corrected. The case study patient was referred to a pediatric surgeon very late. Unfortunately, it is very common for this to happen despite the consensus indicating the need for an early assessment[7]. This reinforces the need to advise pediatricians and family doctors of the importance of early diagnosis of testicular dystopias [9].

The treatment for testicular ectopia is early surgical correction with orchidopexy. There is no possibility of spontaneous testicular descent, since the gonad is not in the testicular migration line [ii]. The appropriate age for orchidopexy should not exceed 18 months of age, as suggested by worldwide consensus [2, 8, 10] . As observed, the testicular fixation in the scrotum is technically easy as sperm vessels are of normal length. Possible complications are similar to those found in the cryptorchid testicles, such as: trauma, torsion, and malignant degeneration in adulthood[9].

Conclusion

Although a rare diagnosis, testicular ectopia should be considered when assessing patients with cryptorchidism. It Is always important to conduct a meticulous clinical examination of the regions where the ectopic gonad can be located, such as the perineum, pubis, contralateral scrotum, and femoral region. Clinical diagnosis is essential and early surgical treatment must be performed.

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