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Case Reports

Crossed Testicular Ectopia: A Case Report

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Introduction

Crossed testicular ectopia or transverse testicular ectopia is an extremely rare anomaly in which both testes descend through a single inguinal canal.[1] It is characterized by symptomatic inguinal hernia on one side and cryptorchism on the contralateral side. Crossed testicular ectopia is often not diagnosed until surgical exploration.[2] We report a case of crossed testicular ectopia in a 22-month-old boy.

Case Report

A 22-month-old boy with a large mass that had been present on the left groin since birth was referred to our institution for treatment. On physical examination, a large left inguinal hernia was revealed, and the right testis was not palpable. No other genitourinary abnormality was noted. The patient underwent herniorrhaphy through an inguinal incision on the left side. Both testes were detected intraoperatively in the hernial sac of the left side (Figure 1). Each testis had its own vas deferens, and the separation of spermatic cords was not possible.

The scrotum was subsequently opened through a midline incision, and after the removal of hernial sac, the testes were fixed separately in their respective hemiscrotum. Postoperative ultrasonography showed a normal genitourinary system and pelvis, and no complications were noted at the patient's 2-month postsurgical follow-up examination.

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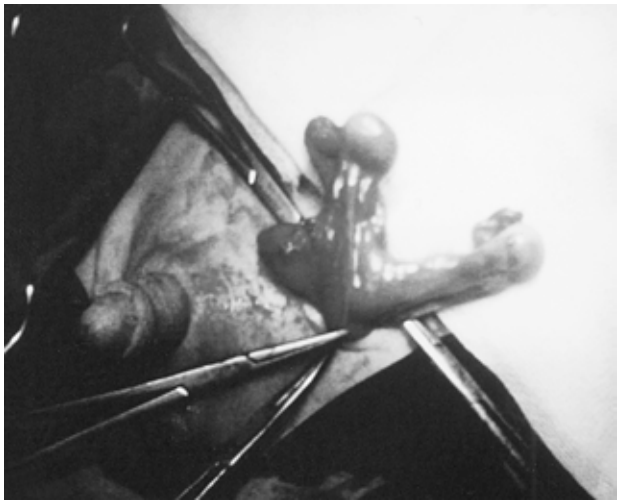

FIG. 1. Crossed testicular ectopia in a 22-month-old boy detected at herniotomy. Vas deferens were separate, but the spermatic cords were fused.

Discussion

Crossed testicular ectopia is a rare but well known congenital anomaly that was first reported by von Lenhossek[3] in 1886. It is usually associated with other abnormalities such as persistent mullerian duct syndrome,[4] true hermaphroditism,[5] inguinal hernia, hypospadias, pseudohermaphroditism, and scrotal anomalies. In 2% to 97% of patients with crossed testicular ectopia, disorders of the upper and lower urinary tract system have been reported.[6] The development of malignancy is also relatively common in patients with crossed testicular ectopia.[2]

Although the cause of crossed testicular ectopia is unknown, local factors (such as gubernaculum mechanism) in the absence of endocrine disorders have been suggested. Some experts[7] have proposed the following classification of crossed testicular ectopia: type 1, accompanied

only by hernia; type 2, accompanied by persistent mullerian duct; and type 3, associated with disorders other than persistent mullerian remnants. According to that classification, our patient exhibited a type 1 crossed testicular ectopia. Clinical presentations in patients with that type of testicular ectopia generally include an inguinal hernia on one side and cryptorchidism on the contralateral side. The patients are usually 1 to 2 years old at presentation, and diagnosis is not made before surgical operation. The use of computed tomographic scan, magnetic resonance imaging, arteriography, and venography has yielded different results. If crossed testicular ectopia is suspected, ultrasonography and subsequent magnetic resonance imaging have been recommended for diagnosis.[2]

The therapy for testicular ectopia is either transseptal or extraperitoneal transposition orchidopexy.[7] A case of successful laparoscopic-assisted orchidopexy has been reported by Dean and Shah.[1]

In conclusion, it can be said that crossed testicular ectopia should be a diagnosis considered when unilateral inguinal hernia and concurrent cryptorchidism of the contralateral side are present. An appropriate preoperative assessment and careful differential diagnosis to rule out other potential abnormalities are needed. Clinicians should be cautioned that patients with a history of crossed testicular ectopia require long-term follow-up for the development of malignancy.

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