

CASE REPORT

TRANSVERSE TESTICULAR ECTOPIA

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We present a case of Transverse testicular ectopia of the right testis that presented to our surgical out patient department with left inguinal hernia and an impalpable testis in the right scrotum. Patient was operated. Left herniotomy was performed and right testis was found in the left inguinal canal which was brought to the right scrotum and anchored through suprapubic subcutaneous tunnel.

Key words : Transverse testicular ectopia, Inguinal hernia, Urogenital anomalies.

INTRODUCTION

Transverse testicular ectopia is an extremely rare but well recognized entity in which both gonads migrate towards the same hemiscrotum¹⁻³. The clinical findings are usually symptomatic inguinal hernia on one side to which the ectopic gonad has migrated, and an impalpable testis on the other side. In most reported cases, the correct diagnosis is not made preoperatively, but made on the operation table as the patients are operated for repair of inguinal hernia. In most cases, the patients comes to the hospital because of cryptorchism on one side, and inguinal hernia on the other side, so the patients are usually very young, under one or two years of age.

CASE REPORT

A two year old male patient presented to our hospital with left inguinal hernia and right undescended testis, on clinical examination, the right scrotum was empty, and no testis was palpable on the right side. The left inguinal hernia was confirmed, the left testis was palpable in the left scrotum.

During operation, the left inguinal exploration revealed a normal testis within the left scrotum associated with an indirect inguinal hernia. During dissection, the right testis was encountered in the left inguinal canal. Each testes was noted to have its corresponding spermatic cord, and had two vasadeferentia which were separated, the two testes were of a good size identical in appearance. Each had its own vascular pedicle. After left inguinal herniotomy the right testis with an extra ordinary long spermatic cord was brought to the right scrotum and anchored through suprapubic subcutaneous tunnel.

DISCUSSION

Normally, the testis is located in the scrotum at birth. Ectopic testis have been reported at different site, including the superficial inguinal pouch, suprapubic,

femoral, and perianal areas, and at the base of the penis⁴.

Migration of the testis to the opposite side, where both testis pass through the same inguinal canal is known as transverse testicular ectopica. Over hundred cases of transverse testicular ectopic have been reported in the literature^{5,6}.

The first description of the entity is usually attributed to Lenhossek⁷, who in 1886 described this form of ectopica as part of an autopsy performed by his father twenty years earlier. Subsequently, Jordan reported the case of an 8 years old boy operated for left inguinal hernia⁸. The first case published in English literature was reported in 1907 by Halstead⁹, and followed by hundred other cases.

A number of theories have been proposed to explain the etiology of ectopic testis. The first serious explanation with this multiple insertion theory is provided by Lockwood when he reported that the gubernaculum testis terminates in 5 tails that are attached to the bottom of the scrotum, the front of the pubis, the perineum, the scarpa, triangle in the thigh, the region of the inguinal ligament just medial to the anterior superior iliac spine^{10,11}. Gupta and Das¹² postulated that adherence and fusion of the developing Wolffian ducts takes place early and that descent of one testis causes the second testis to follow it. Gray and Skandalakis¹³ felt that since in most cases both ducts are separate, a crossing over must have occurred later. Kimura¹⁴ suggested that if fusion of the ducts is present, it can be assumed that the two testis arose from the same genital ridge and that true crossing of the testis occurred only when a separate ductus deferens reached each testis.

Based on the presence of various associated anomalies, transverse testicular ectopia has been classified into 3 types: (i) associated with inguinal hernia alone (40-50%); (ii) associated with persistent mullerian duct structures(30%); and (iii) associated with other anomalies without mullerian remnants (inguinal hernia, hypospadias,

pseudohermaphroditism and scrotal abnormalities) (20%)¹⁵.

Testicular ectopia usually comes to the surgeon's attention because of a symptomatic inguinal hernia on the side to which the ectopic testis has migrated. In most of the reported cases the diagnosis was only made during operation and not pre-operatively. Our patient was found to have transverse testicular ectopia during surgery for herniotomy in a child with contra lateral undescended testis. Recently, MRI has been suggested for preoperative location of impalpable testis¹⁶. Adams Baum et al¹⁷ recommended routine pelvic and inguinal area ultrasonography in bilateral cryptorchidism patients and in patients with inguinal hernia of unusually hard consistency. Fairfax and Skoog¹⁸ reported a 14 month old child with transverse testicular ectopia diagnosed laparoscopically.

Little attention has been focused on the treatment. A variety of procedures have been described, including a staged procedure to bring the ectopic testis into its correct canal. Where both testes are found to lie in the scrotum, herniotomy is the only action required. Where the transverse ectopic testis lies in the inguinal canal or at the external ring, it should be separated from the hernia and moved into the scrotum with its supplying cord structures lying alongside those of the ipsilateral testis.

In our case, the ectopic testis was located in the inguinal canal. After separation from the hernial sac and left cord, the right testis with long cord was brought to the right scrotum and anchored through a suprapubic subcutaneous tunnel.

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