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Crossed Testicular Ectopia: Case Report

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Abstract | **Case Report**

Crossed testicular ectopia or transverse testicular ectopia (TTE) is one of the rare congenital anomaly upon the genitourinary system. It happens when one of the hemiscrotum is empty and the other side contains two testes. Hernia association, worried parents about the undescended testis and incidental imaging are the classic scenarios of presentation. However, multiple reported cases are diagnosed during the surgery as incidental finding. Accordingly, bilateral orchidopexy is warranted.

Keywords: Cryptorchidism, testicular ectopia, undescended testis, testis.

INTRODUCTION

Multiple sites of ectopic testis are documented, as it can be found in the perineum, the opposite side of scrotum, femoral canal and the pubopenile region. Transcrotal ectopia .opposite migration of one testis to the opposite side through the same inguinal canal called transverse testicular ectopia. Less than 100 cases are reported worldwide [1]. In this manuscript we report a 24 days old baby presented with irreducible hernia and TTE.

CASE PRESENTATION

A 3 weeks old baby. No past medical or surgical history of chronic illness .Normal vaginal delivery, full term and no NICU admission. Presented to the emergency department as a case of left irreducible inguinoscrotal hernia which was noticed by the parents 4 hours before. The baby was crying and irritable. Local exam showed tense and tender left inguinoscrotal swelling with no palpable testis along with empty right hemiscrotum. After giving paracetamol suppositories the hernia was reduced to the abdomen manually and the patient was admitted for observation .Next day, the patient was sent to the operation theatre for inguinal hernia repair. Intra operative findings revealed the presence of large empty left inguinal sac side by side with two vas deference and two vessels figure (1). The decision to explore the scrotum revealed the presence of two longitudinal lying testes with marked discrepancy in size figure (2). As the baby has an irreducible hernia, both testes were congested. Orchidopexy for both testes beside herniotomy were done smoothly. Follow up ultrasound showed both kidneys appear normal in size shape and echogenicity, no evidence of right side intrabdominal testis, no evidence of other pathology. 4 weeks later, the patient underwent diagnostic laparoscopy with no positive findings of Mullerian duct remnants.

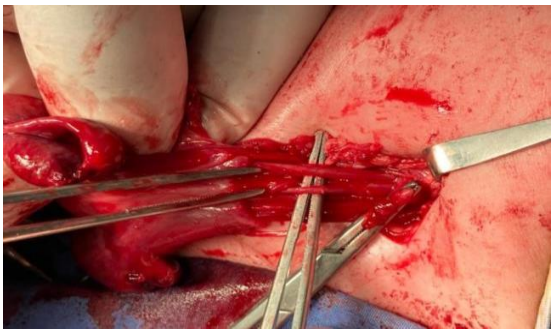

Fig-1: Intra operative appearance of two vas deference

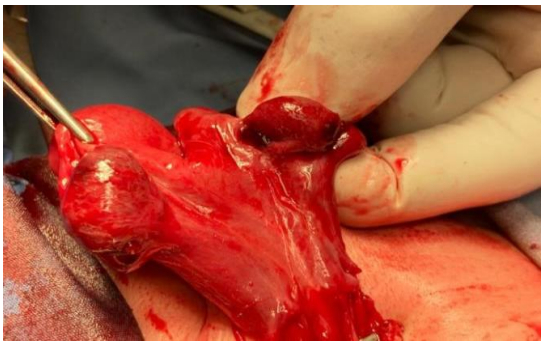

Fig-2: Intraoperative appearance of two transverse lying testes

DISCUSSION

Multiple medical terms can describe Tran's scrotal testicular ectopia: transverse testicular ectopia (TTE), crossed testicular ectopia (CTE), unilateral double testis testicular pseudo duplication and transverse aberrant testicular maldescend. All of these terms reveal the presence of two testes on one side of the hemiscroum and descending on the same inguinal canal [2].

Family history may play an important rule, and multiple associated congenital anomalies may present at the same time like inguinal hernia, hypospadias, scrotal anomaly, renal agenesis, Persistent mullerian duct syndrome (PMDS), true hermaphroditism and

Psuodohermaphroditisim.upon our case report it was associated with inguinal hernia only and there was no family history of similar condition. Mullerian duct remnant and other urologic pathology were excluded by Ultrasound and diagnostic laparoscopy [3].

Three type of CTE were documented as the most common type is type one and the same finding on our patient, it present with hernia only (40%-50%).Type two present with CTE and PMDS (30%) and type three present with CTE and other disorder like hypospadias, true hermaphroditism and psuodohermaphroditisim and scrotal anomaly [4].

Diagnose of CTE could be either before the surgery or as incidental finding during the surgery. Best tools to localize the site of testes, especially if the contralateral side is empty, by ultrasound CT scan, MRI and diagnostic laparoscopy. However, diagnostic laparoscopy can be diagnostic for the site of testis side by side the presence of persistent Mullerian duct structures [5].

Regarding the option of treatment the cornerstone is to detect other associated congenital anomaly like Mullerian duct remnants along with correction of the ectopic testis and relocate it on its anatomical position as the transseptal opening and fixation on the other hemiscrotum (Ombrèdanne-Miller) .In case of very short cord and the risk of high up position then staged orchidopexy can be performed. If the testis is atrophied then the decision of orchidectomy could be the best option to avoid the risk of malignant changes [6, 7].

Yıldız et al. in his study reported six cases of TTE within the period of October 2001 to January 2008.All of them presented as a case of inguinal hernia and four of them diagnosed at the time of surgery .this study are one of the largest series illustrating this rare anomaly up to our knowledge [8]. Akin M, also reported six cases of TTE. Four patients presented with undescended testes bilaterally and discovered two cases have fused vas deferentes [9].

CONCLUSION

Crossed testicular ectopia is one of the rare urogenital anomalies .Multiple associated anomalies are present as scrotal conditions and hypospadias, mullerian duct remnant and karyotyping is an important point to exclude for these patients. Transcrotal fixation versus staged orchidopexy is mandatory for all patients except in atrophied high up testis. Incidental intraoperative finding highlight the importance of bilateral orchidopexy and exclude other anomalies. Pre-operative imaging study as ultrasound can provide the best information about the site of both them along with best surgical option of treatment.

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