

TRANSVERSE TESTICULAR ECTOPIA WITH INGUINAL HERNIA WITH FUSED CORDS: A RARE PRESENTATION

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ABSTRACT

Transverse testicular ectopia (TTE) is a rare anomaly that is commonly associated with inguinal hernia. Transverse testicular ectopia with fused cords is an extremely rare presentation. Most of the reported cases are in children. We report a case of a 14-year-old male who presented with reducible left inguinal hernia. During surgery he was found to have a left indirect inguinal hernia with TTE with fused cords with both testes on the left hemiscrotum. Herniotomy and bilateral orchidopexy were performed. He had an uneventful recovery. Most of these cases are diagnosed intraoperatively, but imaging (ultrasonography and magnetic resonance imaging) has emerged as a promising tool for preoperative diagnosis although ultrasonogram missed it in this case.

KEYWORDS

Transverse Testicular Ectopia, Inguinal Hernia, Orchidopexy

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INTRODUCTION: Transverse testicular ectopia (TTE) is an uncommon anatomical abnormality in which both gonads migrate towards the same hemiscrotum. The ectopic testis may lie in the opposite hemiscrotum, inguinal canal or at the deep inguinal ring. TTE with fused spermatic cords is an extremely rare presentation. An inguinal hernia is commonly present on the side to which the ectopic testis has migrated.^[1] The diagnosis is commonly established during surgical exploration. Here, we present a case of a 14-year-old male diagnosed preoperatively as left inguinal hernia with normal ultrasonography finding and found to have TTE on exploration.

CASE REPORT: A 14-year-old male presented to us with history of swelling over left inguinal region since 4 years of age. The swelling was painless, gradually increasing in size and more prominent on coughing and straining. On examination, there was a 3 x 3 cm reducible left-sided indirect inguinal hernia. An ultrasonography revealed a normal scan of bilateral testes and scrotum. He was planned for Herniotomy and on exploration, there was a left indirect inguinal hernia. Surprisingly, both testes could be delivered into the wound with right ectopic testis transversely placed. Each testis was noted to have its corresponding spermatic cord, vascular pedicle and vasa deferentia with two cords fused 4 cm proximal to the testis and were passing through the internal ring of the left side (Fig. 1).

Both the testes were mobilised after carefully dissecting the fused cords without vascular compromise (Fig. 2) followed by right orchidopexy (of medially located testis) by passing it through a trans-septal incision. Left orchidopexy and Herniotomy were performed. He had an uneventful recovery (Fig. 3) and on followup, he had no complications, both the testes were normal to feel with no vascular compromise on Doppler study.



Fig. 1: Exploration of Left Inguinal Region Revealed Both Testes with Two Cords Fused 4 cm Proximal to the Testis with Hernial Sac



Fig. 2: Dissection of the Fused Cords

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Fig. 3: Postoperative Photograph

DISCUSSION: TTE, also called Testicular pseudoduplication, unilateral double testis and transverse aberrant testicular maldescent, is an uncommon anatomical abnormality in which both gonads migrate towards the same hemiscrotum with around 100 cases reported in the literature. It was first reported by von Lenhossek in 1886.^[2] TTE with fused cords is an extremely rare presentation. The embryological aetiology of TTE is controversial. Adhesion or fusion of developing Wolffian ducts, defective or aberrant gubernaculum, testicular adhesion, defective formation of the internal inguinal ring, traction on a testis by persistent Mullerian structures and possibility of the development of both testes from the same germinal ridge are some of the postulated theories for the ectopic testis. Association of TTE with persistent Mullerian ducts was first described in 1895 by Jordan.^[3] Mechanical effect of persistent Mullerian duct structures may prevent the testicular descent or lead to both testicles descending towards the same hemiscrotum, producing TTE. TTE may have an increased risk of malignancy as another form of ectopic testis or undescended testis, so long term followup is required.^[4]

TTE is classified into three types based on associated abnormalities.^[5]

1. Type I: Accompanied only by hernia (40 to 50%).
2. Type II: Accompanied by persistent or rudimentary Mullerian duct structures (30%).
3. Type III: Associated with disorders other than Mullerian remnants, e. g. hypospadias, true or pseudohermaphroditism and other scrotal abnormalities (20%).

Patients with TTE commonly present as inguinal hernia on one side and absent testis on the other side. Most cases of TTE are diagnosed intraoperatively.^[6] In our case, the patient had left inguinal hernia and absent testis on the right hemiscrotum which we could not identify on clinical examination and ultrasonography. One explanation could be that since both the testes were on the left hemiscrotum, the pressure effect of left testis on the right one could have

pushed the right testis towards further right of the left hemiscrotum giving a false impression on clinical examination that location of right testis was on correct side. There are reports suggesting ultrasonography, CT scan, MRI and Magnetic resonance Venography as tools for preoperative diagnosis of TTE.^[7]

Few cases have been reported in adults.^[8,9] The case presented here was managed by orchidopexy of the correctly lateralised testis to the ipsilateral hemiscrotum and orchidopexy of the crossed testis to the contralateral hemiscrotum through a trans-septal incision known as the Ombredanne procedure.^[4]

CONCLUSION: This case is reported with a view that surgeons need to be aware of this anomaly during repair of inguinal hernia, as most cases of TTE are diagnosed intraoperatively, hence adequately and safely treat the patient even with TTE when discovered unexpectedly and continue long term followup to identify malignancy early, if any. Patients with TTE need to be treated by restoring the contralateral testis to its original hemiscrotum through a trans-septal incision.

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