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## Transverse testicular ectopia: Report of two cases

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### Abstract

Transverse testicular ectopia is a condition in which one undescended testis cross the midline and descent with opposite testis. Transverse testicular ectopia present with either testes in same hemiscrotum or one testis in inguinal canal of same side. Transverse testicular ectopia is a rare variant of ectopic testis. We are reporting here two cases of transverse testicular ectopia, in one case both testes had single vas deferens with separate pampiniform plexus. Another case had separate vas deferens and pampiniform plexus. Both cases of transverse testicular ectopia associated with inguinal hernia.

**Keywords:** Hemiscrotum, testes, testicular ectopia, transverse testicular ectopia, undescended testis

### Introduction

Testicular ectopia defined as aberration of testis from normal descent pathway. Site of testicular ectopia are superficial inguinal (interstitial), femoral (crural), perineal, pubo- penile and crossed (transverse testicular ectopia) [1]. Transverse testicular ectopia is commonly present with non-palpable testis one side and undescended testis with inguinal hernia opposite side. Some time both testes palpable in single hemiscrotum and empty contra-lateral hemiscrotum. Till now, more than 100 cases of transverse testicular ectopia have been reported in English literature.

**Case report 1:** A five year old male child brought to our department with complaint of empty left scrotum with right inguinal swelling and two palpable swelling in right hemiscrotum. Patient was born full term with normal vaginal delivery. Family history was not significant. On examination, there was no palpable testis in left hemi scrotum and two palpable swelling were present in right hemi scrotum. Left hemiscrotum was small in size compare to right hemiscrotum. Routine blood investigations were within normal limits. Ultrasonography revealed both testes were present in left hemiscrotum with left inguinal hernia. Both testes were normal in size, shape and echotexture. Patient was posted for elective surgery, after getting anaesthetic fitness.

Right inguinal canal was explored and both testes delivered in canal. There were two testes in right hemiscrotum. Both testes had separate pampiniform plexus and single vas deferens (fig.1). For the reason of cosmetic purpose left testis fixed in left hemiscrotum through trans-septal route after left inguinal herniotomy. Right testis fixed in right hemiscrotum (fig.2). Wound closed in layers. Patient was discharge without any complication. Follow-up was uneventful and Ultrasonography showed, both testes were normal in size, shape and echotexture.



**Fig 1:** Showed explored right inguinal canal containing two testes with single vas deferens.

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**Fig 2:** Showed scrotum after trans-septal fixation of left testis.

**Case report 2:** A two year old male child admitted with chief complaint of non palpable right testis with left undescended testis since birth. Birth history of patient was uneventful with full term normal vaginal delivery. On examination right hemiscrotum was empty even not palpable in inguinal region. Left hemiscrotum was also empty, testis palpable in left inguinal region. Blood investigations of patient were normal. Ultrasonography showed right testis was not visible in right hemiscrotum and left testis present in left inguinal region with inguinal hernia. Patient was operated after getting anaesthetic fitness. Left inguinal canal was explored. We found two testes with separate vas deferens and pampiniform plexus with hernia sac (fig. 3). Both cord structures was separated and herniotomy done. Left testis was fixed in subdartos space in left hemiscrotum. Right testis was fixed in subdartos space of right hemiscrotum trans-septally. Post operative recovery was uneventful.



**Fig 3:** Showed explored right inguinal canal containing two testes with separate vas deferens.

**Discussion**

Transverse testicular ectopia is first described by Von Lenhossek in 1886 [2]. First published case of transverse testicular ectopia in English literature was reported by Halstead (1907) [3]. So many theories have been postulated to explain the transverse testicular ectopia. Berg postulated that both testes develop from single germinal ridge. But this theory unable to explain the normal development of separate testes with separate vas deferens at ipsilateral position [4]. Gupta *et al.* Suggested that fusion of Wolffian duct early in life leads to descent of ipsilateral testis bring the contralateral testis [5]. Transverse testicular ectopia associated with various congenital anomalies like, inguinal hernia, hypospadiasis, scrotal anomalies and

disorder of sexual differentiation. On the basis of associated anomaly transverse testicular ectopia classified in three groups. Type 1 associated with inguinal hernia, type 2 associated with rudimentary or persistent mullerian duct remnant, type 3 associated with inguinal hernia, hypospadiasis, disorder of sexual differentiation, scrotal anomalies. Type 1 is the most common type of transverse testicular ectopia. Our both cases according to this classification were grouped in type 1 [6, 7]. Mean age of presentation is four year. We report these cases in five and two years of age [7]. Trans-septal fixation of testis in transverse testicular ectopia was done without complication in our institute [8].

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