Transverse testicular ectopia with inguinal hernia – A rare case report

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A B S T R A C T
INTRODUCTION: Transverse aberrant testicular maldescent is an extremely rare congenital anomaly characterized by the migration of one testicle towards the opposite inguinal canal. Mostly such cases are reported in children and they are very rarely seen in adults.
PRESENTATION OF CASE: We report a case of a 24 year old male patient with left reducible indirect inguinal hernia with absence of testis in the right hemiscrotum. On surgical exploration, the patient had both the testicles on the left side. Left meshplasty with left orchidectomy for the atrophic ectopic testis was done.
DISCUSSION: It can either be associated with inguinal hernia, persistent Mullerian duct structures, hypospadias, true or pseudo hermaphroditism or other scrotal abnormalities. Usually treatment includes transseptal orchiectomy or extra peritoneal transposition of the testis.
CONCLUSION: This rare anomaly is usually diagnosed incidentally during surgical exploration and carries importance due to risk of malignant transformation of the ectopic testis. Therefore it needs specific long term follow up after orchiectomy.

1. Introduction

Transverse aberrant testicular maldescent is a rare anomaly of abnormal testicular migration characterized by the descent of both the testes through the same inguinal canal towards the same hemiscrotum [1]. Usually the diagnosis is incidentally found on surgical exploration (like our case) [2]. Inguinal hernia can also be present on the side of the ectopic testis [1]. It is usually reported in children with very few cases reported in adults [3]. We report a case of transverse aberrant testicular maldescent on the left side with left indirect inguinal hernia in a 24 year old male patient in our institute which is an academic institution. Left meshplasty with left orchidectomy was done and the patient had an uneventful recovery post-surgery.

2. Presentation of case

A 24 year old, unmarried male patient, an Indian farmer, was referred by a family physician and presented with absence of testis in the right hemiscrotum since birth with a swelling in the left inguinal region since 1 year. The swelling was not associated with pain. It increased in size on standing and decreased manually on lying down. There were no bowel and bladder complaints. On examination, there was a 3 × 2 cm nontender swelling in the left inguinal region which was reducible. Cough impulse was present. We made a clinical diagnosis of right undescended testis with left indirect inguinal hernia. Ultrasonography of inguinoscrotal region revealed absence of testis in the right hemiscrotum with left inguinal hernia with a markedly thickened left sided spermatic cord.

Magnetic resonance imaging (MRI) of pelvis revealed a defect of 3 cm in the left inguinal region with herniation of omentum as its content with absence of testis on the right side. Also it revealed a tubular soft tissue density lesion traversing the left inguinal canal extending in the left scrotal sac, suggestive of a thickened spermatic cord.

No past medical or surgical treatment was taken. There was no family history of similar complaints. Patient was planned for left meshplasty. On surgical exploration, along with a left indirect inguinal hernia, an atrophic testis was found at the left deep inguinal ring. The other left testis was present at its normal anatomical position in the left hemiscrotum. The left spermatic cord was markedly thickened and dissection revealed the fusion of the two spermatic cords. Left orchidectomy with left meshplasty was done.

Histopathology of the excised ectopic testis was suggestive of an atrophic testis.

Patient had an uneventful post-operative recovery and came for subsequent follow-ups and had no complication.

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3. Discussion

Transverse aberrant testicular maldescent is also known as transverse testicular ectopia, testicular pseudoduplication and unilateral double testes [4]. It is an extremely rare anomaly characterized by the descent of both the testes through the same inguinal canal [1]. This case was first reported by Von Lenhossek in 1886 [5]. Familial occurrences have been reported and most of them were associated with persistent Mullerian duct syndrome [6].

Usually each testis has a corresponding spermatic cord, but in majority of cases, the two cords fuse to form an inseparable thick walled structure that is several centimeters proximal to the testes [7]. This is seen in our case.

The pathological anatomy is as follows. Each testis has its own blood supply from its corresponding side. During its route of descent, the spermatic vessels of the ectopic testis cross the midline and collide with the contralateral internal ring, along with the spermatic cord of the other normal testis. Fusion of the two spermatic cords in the inguinal canal is common and is usually inseparable [7].

Transverse aberrant testicular maldescent may have an increased risk of malignancy as any other forms of ectopic testis or undescended testis. Hence, long term follow up is required [8]. The overall incidence of malignant transformation of gonads is 18% [9].

Transverse aberrant testicular maldescent is classified into 3 types [10]

1) Associated with inguinal hernia alone (40–50% cases).
2) Associated with persistent Mullerian duct structures (30%).
3) Associated with other anomalies other than Mullerian remnants- hypospadias, true or pseudo hermaphroditism and other scrotal abnormalities.

Usually diagnosis is made on surgical exploration [2].

Management for this condition is either transseptal or extra peritoneal transposition orchidopexy [11]. In our case left orchidectomy was done since the ectopic testis was not viable.

4. Conclusion

Transverse aberrant testicular maldescent is a rare anomaly and can be considered a possibility if there is a clinical presentation of inguinal hernia on one side with absence of testis on the other side. Mostly these cases are incidentally found on surgical exploration and carry importance since they have a risk of malignant transformation. Transseptal or extra peritoneal transposition orchidopexy is the usual treatment of choice. Long term follow up is recommended.

We state that the work has been reported in line with the SCARE criteria [12].

Conflicts of interest

No conflict of interest amongst the authors.

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Ethical approval

Not applicable as it is a case report.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Shubhi Bhatnagar: operated upon the patient, wrote the article, data collection, data analysis, approval of final manuscript.
Shahaji Chavan: operated upon the patient, data interpretation, approval of final manuscript.
Mahendra Bendre: supervised the data, approval of final manuscript.

Guarantor

Shubhi Bhatnagar.

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