Case Report

Perineal ectopic testis: a case of a rare type of ectopic testis

Pervez MMM[a], Nahar J[b], Halder AL[c], Shahnaz M[d], Salehin SA[e]

ABSTRACT

Perineal ectopic testis is a rare congenital anomaly. It can be diagnosed with physical examination and ultrasound. An empty hemiscrotum gives rise to suspicion of the disorder of undescended testis. Examination of patient with empty scrotum should include examination of sites like perineum to look for ectopic testis. Perineal ectopic testes are prone to trauma, torsion and malignancy. Early surgery is therefore recommended. Here we present a rare case of right sided empty hemiscrotum with ipsilateral perineal swelling since birth of a toddler of 16 months- which was later diagnosed as right sided perineal ectopic testis. Right sided inguinal orchiopexy was performed. Gubernaculum testis was found to be fixed in the perineum.

Key words: *cryptorchidism, perineal ectopic testis, inguinal orchopexy.*

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INTRODUCTION

Ectopic testis is one which has deviated from its usual path of descent and is not found in regions of usual descent, the scrotum. Perineal ectopic testis (PET) is a rare condition in which the testis has been occupied an abnormal position between the penoscrotal raphe and the genitofemoral fold.[1] Incidence of PET is approximately 1% of all cases of undescended testes.[2] The first case was reported by John Hunter in 1786.[3] The other sites for testicular ectopia are superficial inguinal pouch (Denis Browne pouch), femoral canal, contralateral scrotum and prepenile region. An empty scrotum with palpable perineal soft mass is suggestive of ectopic testis in the perineum. Antenatal diagnosis of PET can be made by ultrasonographically.[2] PET are prone to trauma, torsion and malignancy; early surgery is, therefore, recommended.[1] In this report, we present a case of PET and its surgical management.

CASE REPORT

A 16-month-old boy was brought for the management of right sided empty scrotum (Figure 1). Examination revealed a healthy looking boy with less developed and empty right scrotum. The contralateral testis was present in the scrotum. An oval shaped soft mass found in the perineum (Figure 2) which was confirmed by ultrasonography. Both testes were 1.7cm x 0.9 cm in size.

The diagnosis of right ectopic testis was made and surgery was planned. Surgical exploration through inguinal incision revealed gubernaculum testis attached with perineal tissues (Figure 3). The testis was mobilized and gently delivered into the inguinal wound (Figure 4). It was found normal with adequate length of the vas and vessels; the testis was fixed in the ipsilateral scrotum using the standard Dartos pouch technique. Follow-up after six months revealed right testis present inside the scrotum (Figure 5).

Author information

a. M M Masud Pervez, Associate Professor, Department of Pediatric Surgery, BIRDEM General Hospital & IMC,Dhaka, Bangladesh.

b. Jebun Nahar, Professor, Department of Pediatrics and Neonatology, BIRDEM General Hospital & IMC,Dhaka, Bangladesh.

c. Amrita Lal Halder, Associate Professor, Department of Pediatrics and Neonatology, BIRDEM General Hospital & IMC,Dhaka, Bangladesh.

d. Mahjib Shahnaz, Medical Officer, National Burn and Plastic Surgery Institute, Dhaka, Bangladesh.

e. Saniath Ahmad Salehin, Senior Medical Officer, Department of Pediatric Surgery, BIRDEM General Hospital & IMC,Dhaka, Bangladesh.

Address of correspondence: M M Masud Pervez, Associate Professor, Department of Pediatric Surgery, BIRDEM General Hospital & IMC, Dhaka, Bangladesh. Email: shaheensb25@gmail.com

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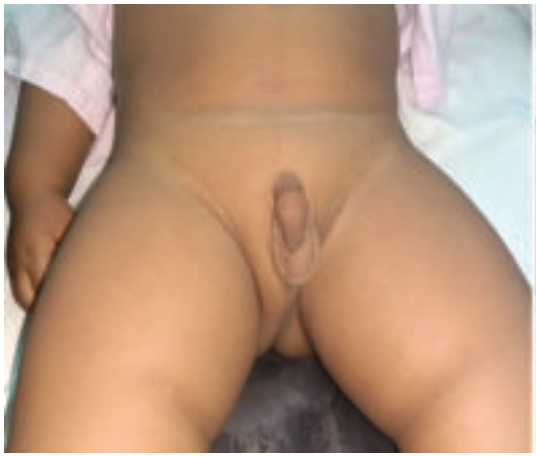

Figure 1

Figure 2

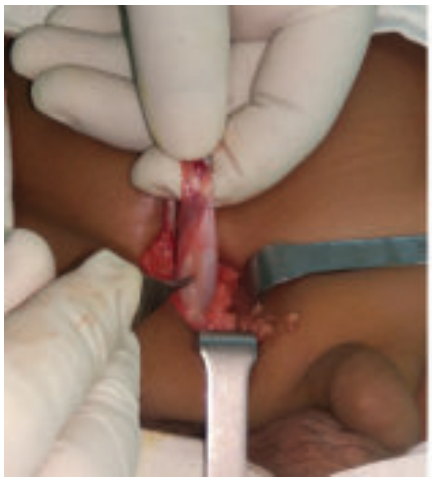

Figure 3

Figure 4

Figure 5

Figures 1-5. Figures showing different stages: clinical examination to follow up.

DISCUSSION

Testicular development and descent from abdomen to scrotum is a complex and multistage process influenced by genetic, hormonal and certain mechanical factors.[4] Normally, the testis follows the course of scrotal extension of gubernaculum but occasionally, it follows one of the other tails of gubernaculums to an ectopic location in the perineum, suprapubic, femoral or contralateral hemiscrotal areas.[5]

The etiology of testicular ectopia is unknown; however, some theories like gubernacular abnormalities, genitofemoral nerve disorders, increased intra-abdominal pressure and endocrine disorders are the most prominent causes.[6] Lockwood suggested that distal part of the gubernaculum has several insertions. If scrotal insertion is dominant, normal descent is seen and if another insertion is dominant, the insertion diverts the testis towards itself leading to ectopy.[7] Furthermore, it is postulated that abnormal fixation of the distal part of the gubernaculum prohibits natural descent of testis.[8] Hutson suggested that abnormal position of genitofemoral nerve leads to an abnormal migration of the gubernaculum and pushes the testis to abnormal position.[9] Middleton and colleagues also reported that increased intra-abdominal pressure could fascilitate testicular descent.[10] Lozano Ortega and associates stated that inadequate hormonal stimulation may lead to ectopy.[11]

It is generally accepted that undescended testis should not be operated before 6 months of age but surgery for ectopic testes should be carried out before the age of 6 months even if not associated with inguinal hernia[12] and attempts to move ectopic testis into the scrotum with hormone therapy have been found ineffective.[5] Because the scrotum is an effective temperature regulator of the testes, ultrastructural changes of the ectopic testis are evident in cases that have late stage orchiopexy. Cendron et al.[13] noted a relative decrease in the volume of the ipsilateral testis by 6 months of age. The ectopic testis after puberty may be fairly normal in size but it is markedly deficient in spermatogenic components. Dogruyol and Balkan[14] found the inguinal approach allowed placement of the testis in the corresponding hemiscrotum without difficulty because of the long length of the cord. We also have easily placed the testis into the scrotum.

Perineal ectopic testes are usually explored through standard inguinal skin crease incision; some surgeons use a low scrotal approach due to the low incidence of concomitant hernia.[15] The hernia sac was not found in our patient. Gubernaculum is usually found fixed to the perineum as was noted in this case and the testis could be placed ipsilateral hemiscrotum easily because the spermatic cord and vessels were sufficiently long.

Most authorities agree that testicular cancer is more common in a misplaced testis than in a normally descended testis.[16] Currently, however, there are no satisfactory reports on whether the risk of testicular cancer in ectopic testis is higher than that of cryptorchidism. The functional outcome is hard to define in PET but has been found to be similar to other forms of maldescended testis. Orchiopexy is the treatment of choice in selected patients, however self-examination and long term follow-up is mandatory.

Authors' contribution: MP, JN diagnosed and managed the case. MS did literature search. SA, MP drafted the manuscript. JN, AL reviewed and contributed further to the article.

Consent: The case report is written with the consent of patient's parent to be published in medical journals.

Conflicts of interest: Nothing to declare.

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