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Komplet Penoskrotal Transpozisyon: Bir Olgu Sunumu

Complete Penoscrotal Transposition: A Case Report

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Öz

Penoskrostal transpozisyon, dış erkek genitalinin oldukça nadir görülen konjenital bir anomalisi olup penisin skrotuma göre malpozisyonu ile karakterize edilir. Komplet ve inkomplet olmak üzere iki tür penoskrotal transpozisyon varyantı vardır. Bu olgu sunumunda, 11 yaşında, komplet penoskrostal transpozisyonu olan bir erkek çocuk radyolojik ve fizik muayene bulguları ile birlikte tarif edilmiştir.

Anahtar Kelimeler: Penoskrotal transpozisyon, skrotum, penis, anomali

Abstract

Penoscrotal transposition is an extremely rare congenital anomaly of the external male genitalia, characterized by malposition of the penis in relation to the scrotum. There are two types of penoscrotal transposition variants, complete and incomplete. In this case report, an 11-year-old boy with complete penoscrotal transposition is described with radiological and physical examination findings.

Keywords: Penoscrotal transposition, scrotum, penis, anomaly

INTRODUCTION

Penoscrotal transposition (PST) is an extremely rare congenital anomaly of the external male genitalia, characterized by malposition of the penis in relation to the scrotum. There are two variants of penoscrotal transposition. In complete transposition, the scrotum covers the penis which extending from the perineum. In incomplete transposition the penis lies in the middle of the scrotum (1, 2, 3). In both variants, additional anomalies of various systems, particularly the urinary system, may be present. In this case report, we describe an 11-year-old boy with complete penoscrotal transposition and other anomalies.

CASE REPORT

An 11-year-old male patient was admitted to our hospital with the complaint of abnormal appearance in his external genital organs. The parents stated that they had never been to the hospital for this complaint before, but the patient began to feel uncomfortable with this abnormal appearance. Physical examination revealed a bifid scrotum and cephalic localization to the penis (figure 1). The right testis was palpated in the scrotum, but the left was not palpated. He had a small penis and subcoronal hypospadias with severe chordee (figure 2). The other physical examination was normal. Scrotal ultrasonography showed right testis in scrotum and left testis in inguinal canal (figure 3 and 4). Both testes were found to be of age-matched size and normal echogenicity. Hydrocele and inguinal hernia were not observed. Abdominal ultrasonography showed no pathology in both kidneys and other abdominal organs. Pelvic MRI was performed, and internal genital organs were compatible with male (figure 5). With these findings, the patient was diagnosed with complete penoscrotal transposition. The parents gave consent for publication of the case report.

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Figure 1: Complete penoscrotal transposition with the scrotum positioned cephalic to the penis

Figure 2: Complete penoscrotal transposition with bifid scrotum

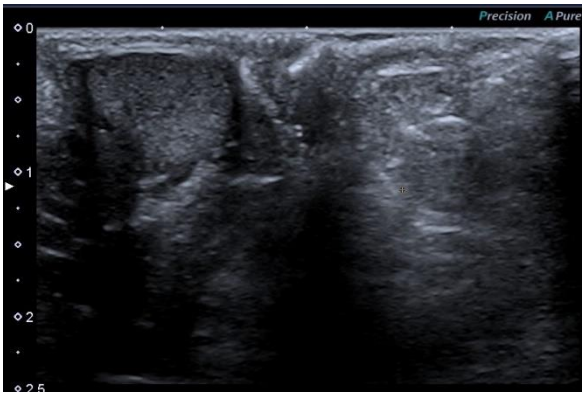

Figure 3: The ultrasonographic image shows that the right testis is in the scrotum but not on the left

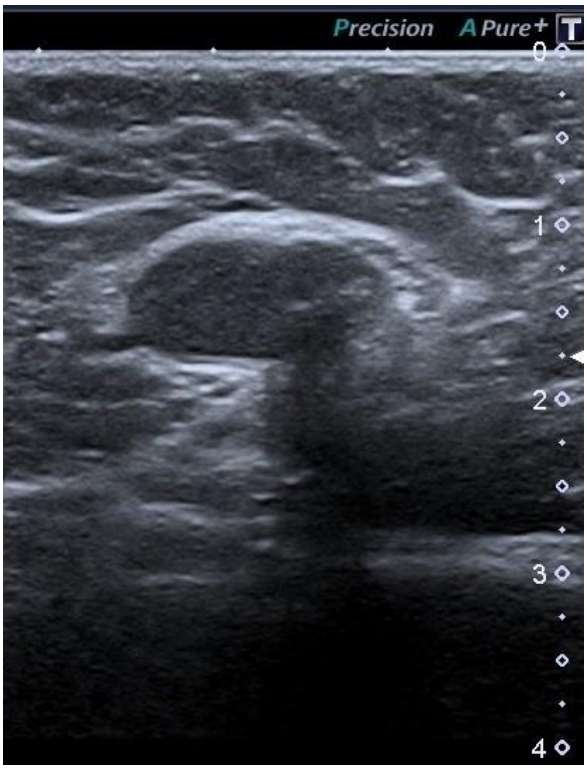

Figure 4: Ultrasonographic image shows left testis in the inguinal canal

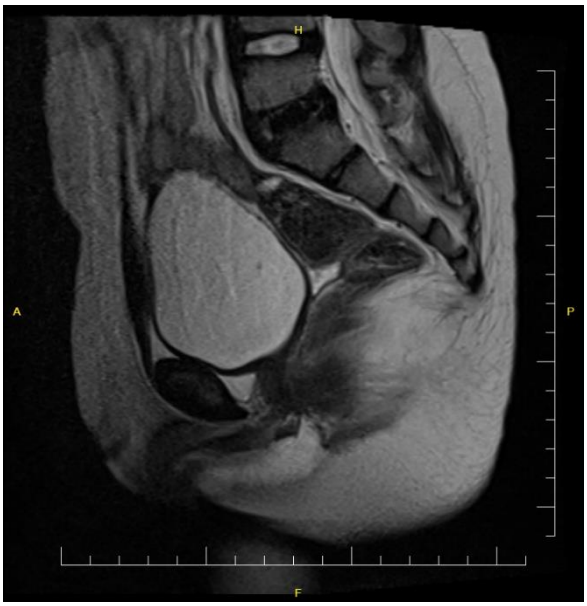

Figure 5: T 2-weighted sagittal pelvic MR image shows that the genital organs are compatible with male gender

DISCUSSION

PST results from abnormal genital tubercle development around the 6th week of gestation. Abnormal location of the genital tubercle or delay in the midline fusion of labioscrotal folds may be the origin of penoscrotal transposition (4, 5). Although some family history or X-linked

recessive inheritance are reported in some of the PST cases, most PST cases are known to be sporadic (6). There was no family history and hereditary trait in this patient. Penoscrotal transposition may occur without additional internal or external genitourinary anomalies. But generally multiple organ anomalies were observed in a significant proportion of patients with penoscrotal transposition (7,8). Because of that a complete physical examination must be performed to detect abnormalities especially of the urinary system, gastrointestinal tract, upper limbs, craniofacial region and central nervous system. On physical examination of this patient, there were only distal hypospadias with penoscrotal transposition and penile chordee anomalies. We also believe that abdominal ultrasonography is especially necessary for the evaluation of the upper urinary system and pelvic organs. Scrotal ultrasonography is also usefull to evaluate ectopic testes. As a result of ultrasonographic examinations, left undescended testicle was detected. However, no evidence of renal or other anomalies reported in the literature was observed. Differential diagnosis must be included especially pseudohermaphroditism. Therefore, we think that additional pelvic MRI may be helpful. The pelvic MRI of the patient was compatible with the male internal genital organs and no finding suggesting pseudohermaphroditism was found. Surgery is the gold standard of complete PST management which is required for the patient's psychosocial development, cosmetic reasons and normal sexual function (1, 6, 8). Surgery is usually preferred to be performed between 12-18 months. However, patients who were operated later, even in adulthood, were reported (3). Surgery was recommended to the parents, but they refused.

As a conclusion complete PST is a rare genital malformation that is usually requires surgery, associated with other genitourinary abnormalities such as undescended testes, chordee and hypospadias. These patients should be evaluated with abdominal and scrotal ultrasonography and even pelvic MRI for differential diagnosis and additional anomaly.

Informed Consent: Written consent was obtained from the participants.

Conflict of Interest: Authors declared no conflict of interest.

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