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CONGENITAL TRANSPOSITION OF THE SCROTOM AND PENIS*

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Congenital transposition of the scrotum and penis is an unusual condition. The number of cases in the literature is not more than 40 since 1911[1,2]. For this reason we wish to present two cases of this rare abnormality seen in our hospital and to discuss the surgical treatment.

Case Reports

Case 1

A newborn was admitted to our hospital at the age of 24 hours with an imperforate anus. He had been born at full term and had delivered spontaneously. The mother stated that she had had an undiagnosed illness with high fever for a few days during the fifth month of gestation but had used no medications and had not been exposed to X-rays. Physical examination of the baby revealed the presence of transposition of the scrotum and penis, membranous type of anal atresia, lingual frenulum and bilateral club feet. He had a bifid scrotum and both testicles were palpable within it. The penis was completely normal and was located anterior to the anal membrane and posterior to the scrotum (Figure 1). Chromosomal karyotype was XY, 24-hour urine corticosteroid level was normal (1.5 mg/24 hr) and IVP showed no pathological findings. He had perineoplasty on admission and on the twenty-fifth day penoscrotal transposition corrected by the technique described by Glenn and Anderson[3].

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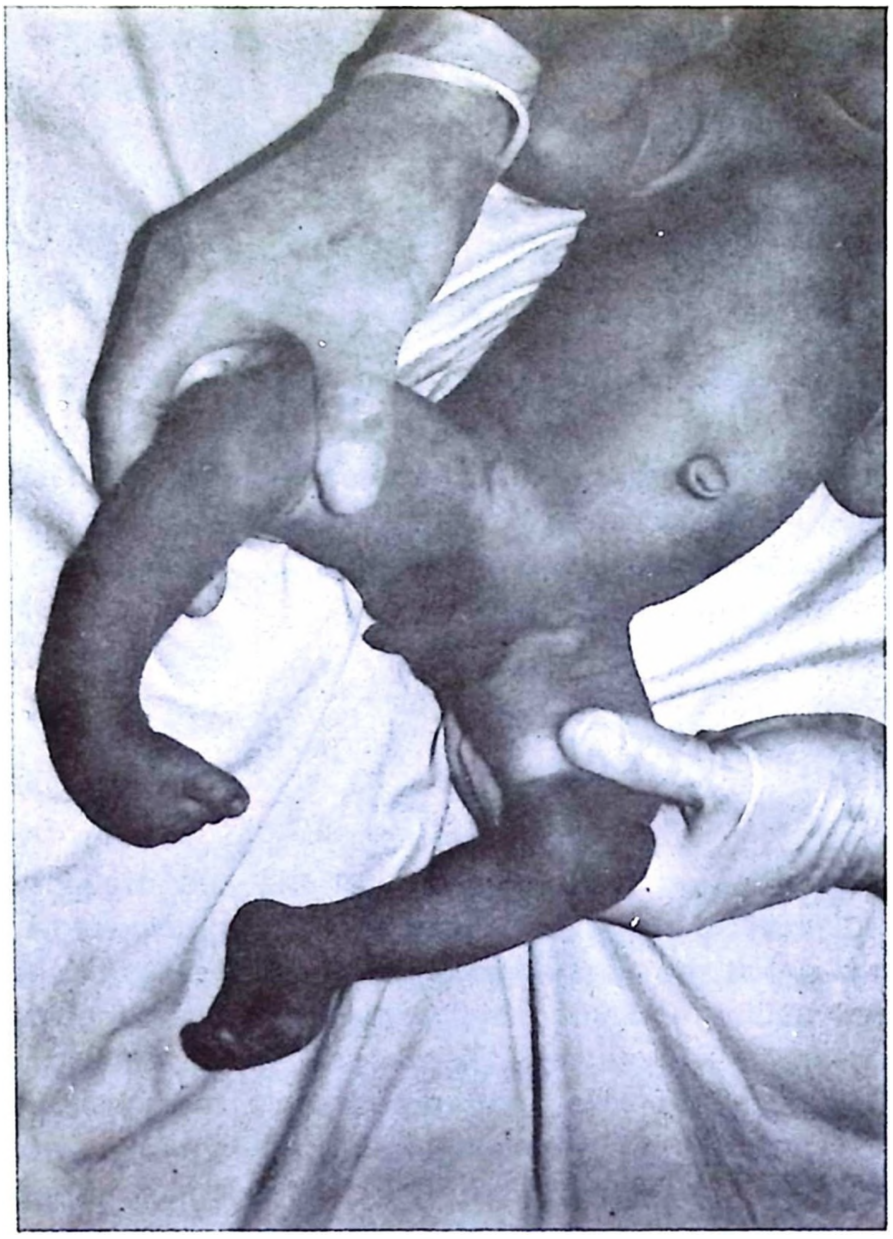

Figure 1

Appearance of patient 1 before the correction.

Case 2

A two-year-old boy with an external genital anomaly was admitted on March 19, 1984. His mother did not reveal any history of drug intake or X-ray irradiation during the antenatal period. The patient had nine brothers and sisters and none had congenital anomalies. General physical and systemic examinations revealed no abnormality. On local examination penoscrotal transposition, perineal hypospadias, bifid scrotum and chordee were found (Figure 2). The 24-hour urine corticosteroid level was normal (1.6 mg/24 hr) and chromosomal karyotype was XY. The cordee was released and surgical correction for the transposition was done by the Glenn and Andersor technique.

The postoperative periods of both patients were uneventful (Figure 3-4). In Case 1, the bilateral clubfeet were corrected by plaster while perineal hypospadias remained to be corrected at a later stage in Case 2.

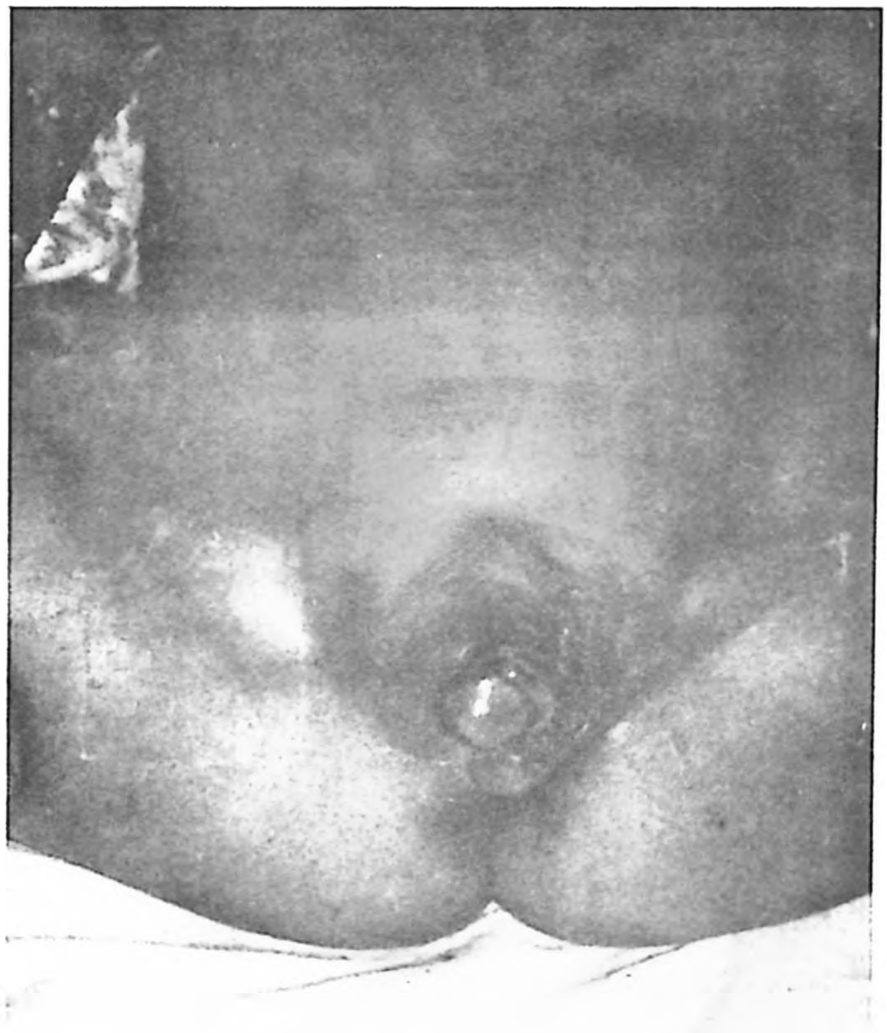

Figure 2

Appearance of patient 2 before the correction.

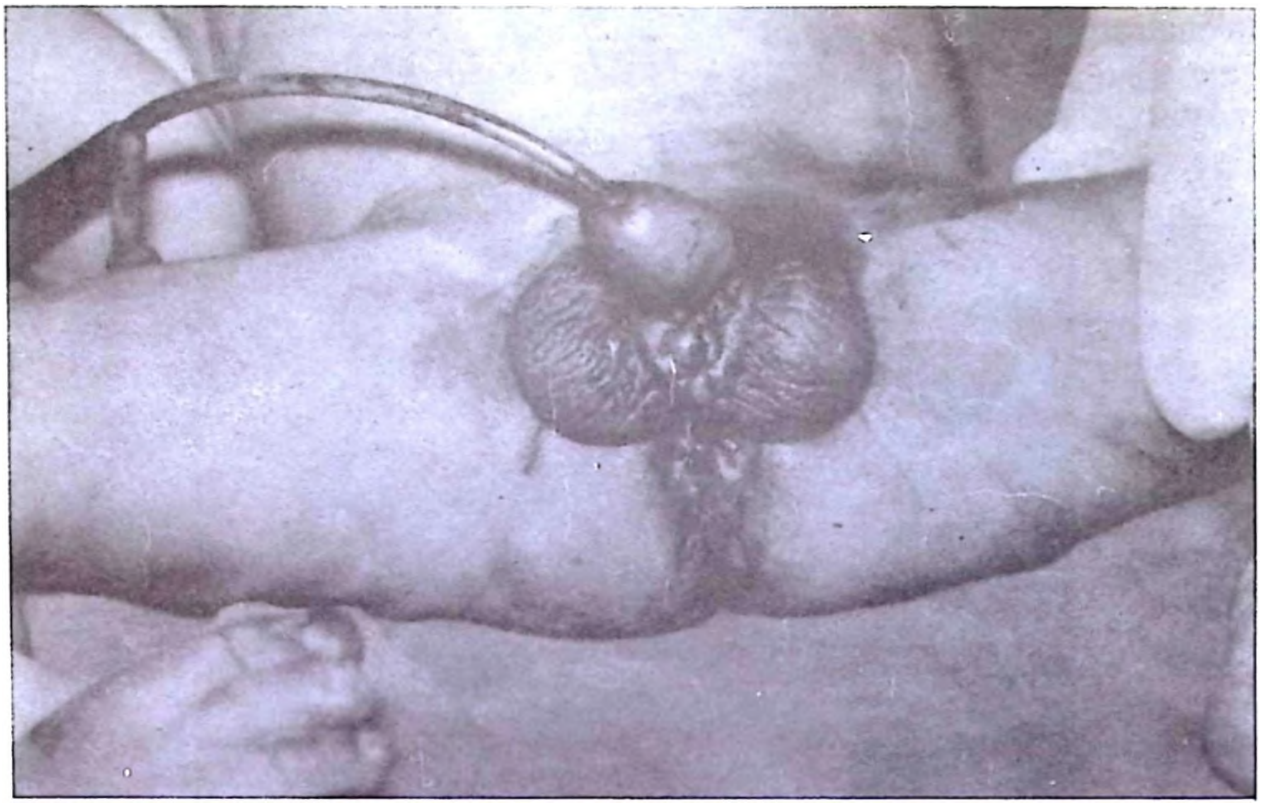

Figure 3
Patient 1 after surgical correction.

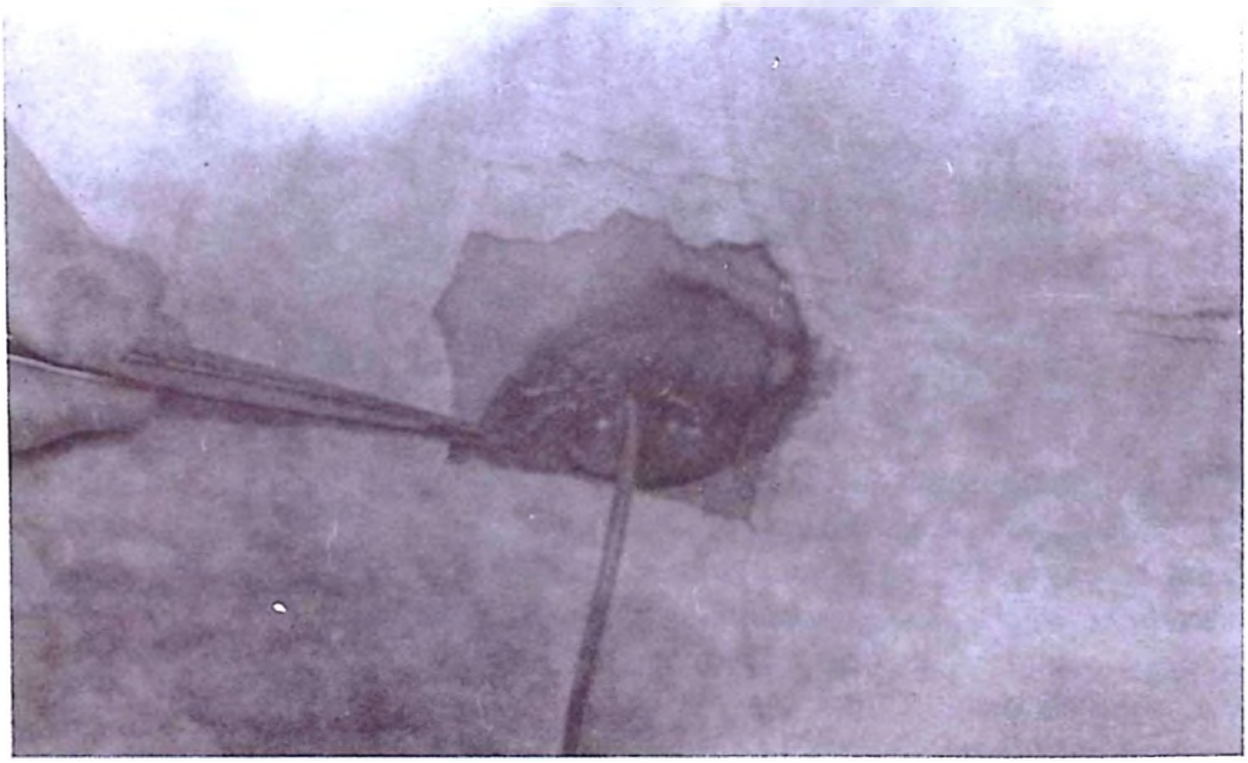

Figure 4
Patient 2 after surgical correction.

Discussion

Although this condition is found commonly in marsupials, in man it appears to be phylogenetic and is difficult to explain on an embryological basis. According to Spaulding[4] the development of pars phallica and the genital tubercle is arrested while the labioscrotal swelling continues to grow anterior to the tubercle. On the other hand Francis[5] believes that the condition arises from the urogenital sinus and failure of the scrotal swelling to shift caudally.

Transposition is usually associated with other system defects. There were three stillborns and five other congenital anomalies that were incompatible with life in a series of 23 patients[6]. One of our patients had anal atresia, bilateral clubfeet and lingual frenulum while perineal hypospadias was an associated anomaly in the other.

Different surgical techniques have been described in the treatment of the malformation. McIlvoy and Harris[7] created a subcutaneous tunnel in the suprapubic area, through which they passed the penis, while Glenn and Anderson[3] separated the scrotum and brought the penis into the anterosuperior position. Forshall and Rickham[8] prefer stage operations.

On both patients we preferred the technique described by Glenn and Anderson[3]. A circular incision was made around the base of the penis. Then a midline incision was extended to the circular incision, to separate the scrotum. Finally the penis was placed in the anterosuperior position and the incisions were closed in two layers with interrupted 4-0 absorbable sutures for subcutaneous tissue and the skin. On Case 2, the chordee was also released after the incision was made around the penis.

Summary

Two cases of congenital transposition of the scrotum and penis are presented. Both patients also had several other system defects. Surgical corrections were performed by the technique described by Glenn and Anderson.

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