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Case Report

Penile duplication or diphallia: case report of a very rare disease

Sandesh Srivastava, Rahul Kumar, Money Sachdeva, Richa Raj*, Om Prakash Singh

Department of Pediatrics, NMCH, Jamuhar, Bihar, India

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***Correspondence:**
Dr. Richa Raj,
E-mail: drops0105@gmail.com

ABSTRACT

Diphallia or penile duplication is an extremely rare congenital malformation. The presentation of penile duplication and the number of other associated anomalies, range from a double glans from a penis with no associated anomaly up to complete penile duplication associated with multiple anomalies.

Keywords: Penile duplication, Diphallia, Double penis

INTRODUCTION

Diphallia or double penis is a very rare and there are very few reported cases in literature. The incidence is one in every 5 to 6 million live births.[1] Approximately 100 cases have been reported since the first case reported by Wecker in 1609.[2] The extent of duplication and the number of associated anomalies vary greatly, ranging from a double glans arising from a common shaft with no other anomaly to complete duplication of the phallus accompanied by multiple anomalies, such as ectopic scrotum, bifid scrotum, hypospadias, imperforate anus, bladder exstrophy, colon duplication, double bladder, and vertebral deformities.[3] Embryologically a diphallus deformity arises from either "separation" of the pubic tubercle, wherein each phallus will have only one corporal body and urethra, or "cleavage" of the pubic tubercle wherein each phallus will have two corporal cavernous bodies and urethras.[4,5] Diphallus has been classified in different ways, such as glandular, bifid, concealed, complete, hemidiphallus and triple penis.[5,6] Schneider classified diphallus in three groups: diphallia of glans alone, bifid diphallus, complete diphallia, and recently a fourth category of pseudodiphallia has been added.[6] The majority have a single corpus cavernosum in each organ.[7]

CASE REPORT

A male neonate, aged 24 hours old delivered normally at term came with the c/o double penis since birth with no history of prenatal exposure to teratogens in any form or any insult during early antenatal period. USG could not detect it antenatally. This newborn was brought to emergency of Narayan medical college and hospital. He was product of a non-consanguineous marriage. On examination baby was conscious, active, alert. Anthropometrically weight was 2.6 kg, length was 48 cm, head circumference was 34 cm, chest circumference was 31 cm. Head appeared to be normal in shape. Anterior fontanelle was normal. No visible dysmorphic features. Neck, thorax, spine and abdomen appeared to be normal. Heart rate was 152/min, respiratory rate was 44/min. SpO2 was 94% on room air, CRT was 2 seconds, extremities were warm. On examination of abdomen, it was soft, non- distended. Bowel sound were present. Central nervous system examination revealed no abnormalities. Tone and cry were good. Bilateral pupils were normal in size, bilaterally equal and reactive to

light. Examination of others systems were normal and no abnormality was detected. On physical examination, the baby had a double penis (diphalus) with double urethral opening, through which the baby micturated normally. Scrotum was well formed containing one palpable testis on each side. He had two separated natal clefts with patent anal orifice. USG KUB revealed no abnormalities with a single bladder. Cystogram with retrograde filling through both urethras demonstrated single bladder without reflux. X-ray of the spine and pelvis were normal. Baseline blood investigations were within normal limit. Echo studies found no heart abnormalities. The baby had only isolated penile duplication with no urogenital abnormality. The baby is being reviewed on monthly basis.

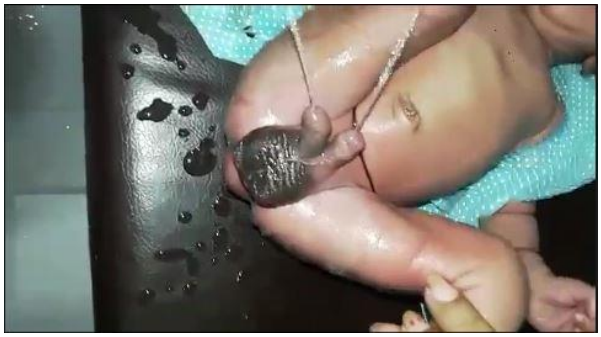

Figure 1: Penile diphallia.

DISCUSSION

Scheneider classified diphallus in three groups: diphallus of glans alone, bifid diphallus, and complete diphallus. Vilanova and Raventos have added a fourth category called pseudodiphllia.[8] Mutlu et al had no complete diphallus in their cases.[6] The meatus may be normal, hypospadiac, or epispadiac. The scrotum may be normal or bifid. Various studies have reported several associated congenital anomalies such as bifid scrotum, hypospadias, duplicated bladder, imperforate anus, bladder exostrophy, colon duplication, inguinal hernia and renal agenesis.[9-12] The management includes a holistic approach towards the entire family as the anomaly has got a profound impact on the growing baby. This will depend on the extent of anomaly and various other congenital associations. The surgery may include simple excision to various complex repairs.

CONCLUSION

Penile duplication is a rare common congenital anomaly. Systematic investigations are mandatory in all cases to expose essential congenital malformations that is theoretically life threatening and require immediate surgical correction. This has got a profound psychological impact on the entire family and the child in particular decisions have to be taken early and should always be personalized according to the amount of penile duplication and the degree of the associated anomalies. All the patients with penile duplication have to be evaluated carefully because of the high incidence of other systemic anomalies and all can be repaired surgically.

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