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Brief Communication

Buried Penis: Parental Perceptions and Surgical Options

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Keywords
Buried penis
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Z-plasty
Genital reconstruction

Abstract

Buried penis is a rare congenital anomaly due to dysplasia of the dartos fascia and lack of penile skin fixation to the Buck's fascia. This report describes an experience with 8 boys with buried penis. In young children, the parental concerns were invisible penis, dribbling of urine and smelly urine. Unfurling of inner prepuce appears to be suitable for severe variety of buried penis, while Z- Plasty is suitable for mild or moderate varieties.

We reviewed the medical records of 8 boys who were operated for buried penis between 2017 and 2021. Their age range was 3 months to 15 years. The parental concerns were invisible penis, dribbling of urine and smelly urine in 2 infant boys while small size of penis and undue shyness in 6 older boys. Using the classification of Chin et.al.[1] they were categorized into severe, moderate or mild deformity. Surgical technique was chosen according to the availability of outer shaft skin and the degree of penopubic and penoscrotal angles. Unfurling of inner prepuce was done in 3 children with severe buried penis (Fig. 1). Z-plasty using a part of scrotal skin was done to gain good penopubic and penoscrotal scrotal angles in the remaining 5 boys with mild or moderate anomaly.

Persistent post-operative edema was noted in 3 children who had undergone unfurling of inner prepuce. (Fig. 2) Preputial edema resolved in 1 to 6 months. Slight bleeding and wound infection in 2 patients required repeated dressing and antibiotics. The remaining 3 boys had an uneventful post-operative period. Follow-up ranged between 2 months and 4 years. All the children and parents were satisfied with the appearance and the length of the penis.

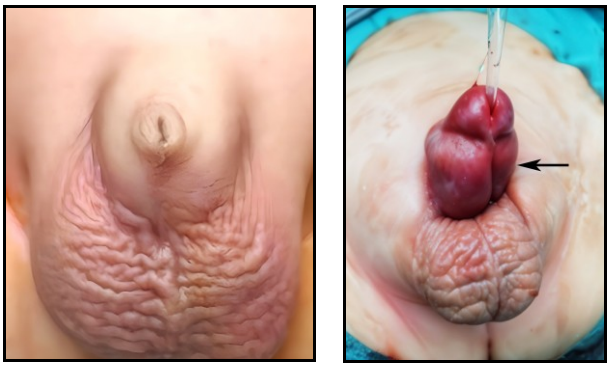

Fig 1. *Burried penis: Preoperative (left panel) and post-operative (right panel) appearance. Arrow indicates the unfurled inner prepuce*

Buried penis is a rare congenital anomaly due to dysplasia of the dartos fascia, lack of penile skin fixation to the Buck's fascia and deficiency of shaft

skin.[1-4] Chin[1] classified buried penis into three groups based on the deficiency of the penile skin. They proposed a ratio of the length of the preputial skin (S) and that of the penile shaft (P). The length of the foreskin was measured by gentle stretching and that of the penile shaft by pressing the pubic fat. Buried penis is categorized as severe if the S/P ratio (S/Px100) is < 30%, moderate if it is 30-70% and mild if it is >70%. In our series 3 children had severe buried penis.

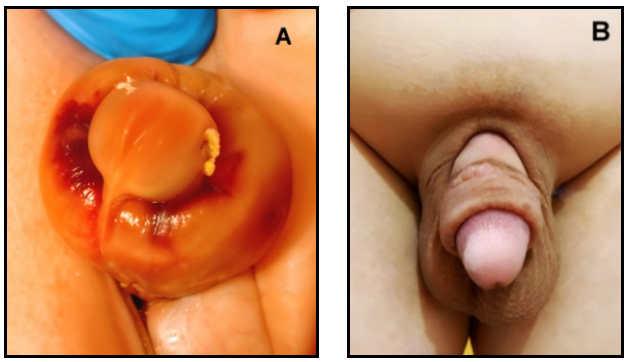

Fig 2. *Post-operative results of burried penis repaired by unfurling the inner prepuce: (A) Immediate post-operative appearance showing significant edema of the inner prepuce, (B) The final outcome*

A 3-month-old infant with severe anomaly had thick fibrous tissue causing severe chordee, glanular hypospadias and long inner prepuce (LIP) as reported by Hadidi.[3] There was severe deficiency of the shaft skin, and it was fixed to the pubis to re-define the penopubic angle. The entire inner prepuce was used to cover the shaft in this patient while only a part of inner prepuce was used in the remaining 2 patients with severe buried penis. In mild or moderate anomalies, complete excision of the abnormal tissue and fat at the base of the penis, raising the scrotal skin flap to cover the base of the penis combined with Z-Plasty helped in creating a good penoscrotal angle and increasing the length of the penile shaft.

Our limited experience suggests that unfurling of the inner prepuce is suitable to treat severe degree of buried penis while Z-plasty is suitable for mild or moderate anomalies.

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