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Surgical Correction of a Penoscrotal Web:A Report of a Case with Literature Review

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Abstract

Penoscrotal Webbing (PSW) is a penile and scrotal skin abnormality that is considered in the spectrum of buried penis. Various surgical techniques have been proposed for PSW with different terminologies. Herein we present a 7-year-old boy with PSW treated using Z-plasty and surgical treatment of PSW is discussed with regard to relevant literature.

Keywords: Children, Penoscrotal Web, Surgery

Introduction

Since its first description by Keyes in 1919 as "absence of penis exists when the penis, lacking its proper sheath of skin, lies buried beneath the integument of the abdomen, thigh or scrotum" buried penis poses significant problems both to patients and to clinicians dealing with this problem [1]. The condition was further described as "complete" or "partial" by Crawford in 1977 [2]. The proximal half of the penile shaft is buried in subcutaneous tissue in the partial type. For the complete type, the phallus is completely invisible and the glans is covered by prepuce.

Penoscrotal Webbing (PSW) is a penile and scrotal skin abnormality that is considered in the spectrum of buried penis. It may be described as extension of scrotal skin onto the ventral surface of the penile shaft obscuring the penoscrotal angle, probably due to abnormal dartos bands [3]. It may produce psychological trauma for the child due to abnormal genital appearance. Pain, abnormal stream of urine or genital dysfunction have also been reported [4]. Various surgical techniques have been proposed for PSW with different terminologies [5-8] Herein we present a 7-year-old boy with PSW treated using Z-plasty and surgical treatment of PSW is discussed with regard to relevant literature.

Case

A 7-year-old boy was admitted to our clinic for concealed penis secondary to PSW (Figure 1,2). He was otherwise normal and the medical history did not reveal local infection, urinary retention or chronic urinary dripping. But the parents were anxious because they felt that their child's penis was too short. In addition to circumcision, foreskin reconstruction using "Z-plasty" on the ventral aspect of the penis solved the problem (Figure 3,4). With an uneventful postoperative period, the family of the child is happy for their child's penile length and appearance.

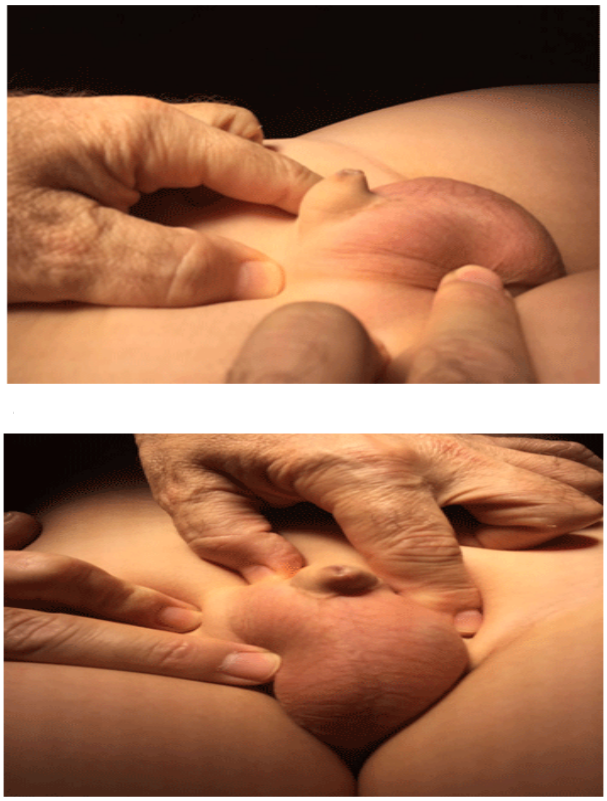

Figure 1, 2: Penoscrotal web.

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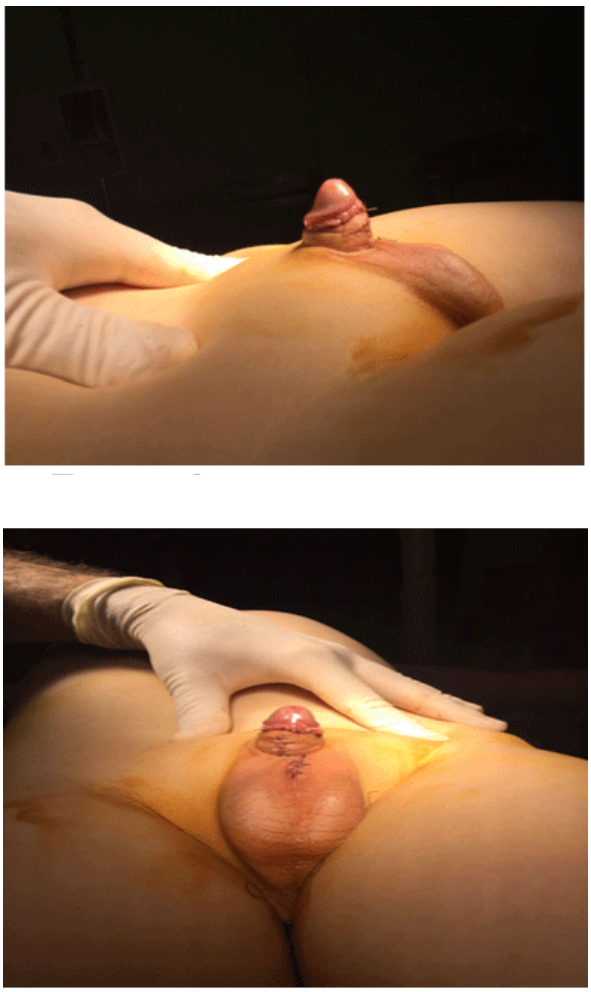

Figure 3, 4: PImmediate postoperative views after completion of circumcision and Z-plasty.

Discussion

Buried penis is a condition where the penis is "concealed" under the suprapubic area [9]. Depending on the degree of anomaly, penis is either completely or partially absent. The true prevalance of this condition is not known exactly and the condition usually becomes problematic when circumcision is requested.

There is an interchanceable terminology on this issue and Maizels et al. in 1986 offered a classification as "buried penis" (patients with redundant suprapubic fat), "webbed penis" (scrotal skin obscures the penoscrotal angle), "trapped penis" (penile shaft is entrapped in the prepubic fat due to trauma or overzealous circumcision), "micropenis" (a penis less than two standard deviations below the mean size) and "diminutive penis" (small penis due to epispadias/exstrophy, severe hypospadias, etc.) [10]. Despite these studies, buried penis is still not a well-defined entity.

PSW is caused by scrotal skin extending onto the ventral surface of the penile shaft [11]. With a loss of penoscrotal angle, it may cause sexual problems during the later adult life of these children. It may also cause psychological trauma due to abnormal appearance [12]. Although its usefulness in clinical practice is questionable, Koutby and El Gohary proposed a grading system which characterized PSW into one of seven subgroups [12]. Parents of children with PSW usually seek medical advice because they think that their child's penis is too short with regard to child's age. Some cases may present with pain, abnormal stream of urine, local infection, urinary retention and undirected voiding. Fortunately except for cosmetic problem, the presented case in this report did not have urinary symptoms due to PSW.

Several surgical techniques have been proposed in the surgical management of these children [5-8]. These are incision of web transversely and closing vertically, Z-plasty at the penoscrotal junction and penoplasty double-V scrotoplasty [3,11]. Excision of excess fat is another choice of surgical managent of PSW but this method is largely reserved for adult patients [12]. The main aims of surgical treatment are; to have exposure of the glans and coronal sulcus, to have a penile skin length equal to the penile shaft length, to have a straight organ and to get a normal penoscrotal angle [13]. Most minor webbing can be handled with circumcision alone. Despite multiple techniques have been reported to correct severe PSW, whichever the surgical technique is used, it is important to preserve adequate ventral shaft skin. Surgical treatment techniques in the management of PSW include Z-plasty techniques, rotational flaps, inverted Y and complete exteriorization of the shaft [14-19]. What is common in all of these surgical techinuqes is to allow ventral skin coverage without tethering to the scrotum. In addition to formal circumcision, Z-plasty technique was performed in our patient with satisfactory cosmetic result. Although there is no concensus on the timing of PSW correction, it has been reported that if PSW appears significant on examination, reconstruction of PSW at 6-12 months has been recommended [3]. Early recognition of PSW is certainly the key to prompt treatment.

PSW is a condition that warrants surgical treatment. As the clinicians deal with more obese child population, pediatric surgeons and pediatric urologists likely to encounter this uncommon condition more often. During the management of these children, if there is any question of penile skin abnormality during circumcision, it should be deferred and should be consulted to a pediatric surgeon or a pediatric urologist. Care should be taken to adress both physical and psychological aspects of the problem. Meticulous surgical treatment is essential for favourable surgical and psychological result.

Reference

1. Keyes EL. Phimosis-Paraphimosis-Tumors of the penis. Appleton&Co., New York, NY, USA, 1919.

2. Crawford BS.Buried Penis. Br J Plast Surg.1977;30(1):96-99.

3. McLeod DJ, Alpert SA. Double-V scrotoplasty for repair of congenital penoscrotal webbing: a hidden scar technique. J Pediatr Urol. 2014;10(5):810-814. doi: 10.1016/j.jpurol.2014.01.014

4. Perlmutter AD, Chamberlain JW. Webbed Penis without Chordee. J Urol. 1972;107(2):320-321.

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5. Wollin M, Duffy G, Malone PS, Ransley PG. Buried penis. A novel approach. Br J Urol. 1990;65(1):97-100.

6. Brisson P, Patel H, Chan M, Feins N. Penoplasty for buried penies. J Pediatr Surg. 2001;36:421-425.

7. Dilly AV, Currie BG. Webbed penis. Pediatr Surg Int. 1999;15:447-478.

8. Lee T,Suh HJ,Han JU. Correcting congenital concealed penis: new pediatric surgical technique. Urology. 2005;65(4):789-792. doi:10.1016/j.urology.2004.10.075

9. Chan IH, Wong KK1.Common urological problems in children: prepuce, phimosis, and buried penis. Hong Kong Med J. 2016;22(3):263-269. doi: 10.12809/hkmj154645

10.Maizels M, Zaontz M, Donovan J, Bushnick PN, Firlit CF. Surgical correction of the buried penis: description of a classification system and a technique to correct the disorder. J Urol. 1986;136(1 Pt 2):268-271.

11.Alter GJ, Salgado CJ, Chim H. Aesthetic Surgery of the Male Genitalia. Seminars Plast Surg .2011; 25(3):189-195. doi:10.1055/s-0031-1281488

12. King ICC, Tahir A, Ramanathan C, Siddiqui H. Buried penis: evaluation of outcomes in children and adults, modification of a unified treatment algorithm, and review of the literature. ISRN Urology. 2013;2013(2013):1-7. doi: 10.1155/2013/109349

13.El-Koutby M, El-Gohary MA. Webbed penis: a new classification system. J Indian Assoc Pediatr Surg. 2010;15(2):50-52.

14. Alter GJ. Correction of penoscrotal web. J Sex Med. 2007;4(4 Pt 1):844-847. doi: 10.1111/j.1743-6109.2007.00512.x

15.Borsellino A, Spagnoli A, Vallasciani S, Martini L, Ferro F. Surgical approach to concealed penis: technical refinements and outcome. Urology. 2007;69(6):1195-1198. doi: 10.1016/j.urology.2007.01.065

16. Yue-bing Chen, Xian-fan Ding, Chong Luo, Shi-cheng Yu, Yan-lan Yu, Bi-de Chen, et al. A new plastic surgical technique for adult congenital webbed penis. J Zhejiang Univ Sci B. 2012;13(9):757-760.

17.Glanz S. ADULT CONGENITAL PENILE DEFORMITY Case Report. Plastic & Reconstructive Surgery. 1968; 41(6): 579-583.

18. Redman JF. A technique for the correction of penoscrotal fusion. J Urol. 1985;133(3):432-433.

19.Zaontz MR. Surgical management of the concealed penis with a penoscrotal web. Dialog Pediatr Urol.2006;28:8.