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.
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, Kouby 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 techniques 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**


