Neonatal genital prolapse: A case report

Sindu Saksono a,*, Alifi Maulidyan b

a Department of Surgery, Pediatric Surgery Division, Faculty of Medicine, Sriwijaya University, Moh. Hoesin General Hospital, Jl Soedirman KM 3.5, Palembang, South Sumatra, Indonesia
b Department of Surgery, Pediatric Surgery Division, Awal Bros Hospital Tangerang, Jl MH Thamrin no. 3, Cikokol, Tangerang City, Banten, Indonesia

A R T I C L E   I N F O

Article info:
Received 11 February 2015
Received in revised form 18 February 2015
Accepted 28 February 2015

Key words:
Neonatal
Genital
Prolapse
Management

A B S T R A C T

Neonatal genital prolapse without congenital spinal abnormality is rare. Several treatment modalities are known to manage this condition. Our management consists of manually reducing the prolapsed mass and applying purse string suture technique.

On admission, we noticed that the prolapsed genitalia was remarkably oedematous and reposition was difficult. We decided to perform reposition under general anesthesia. The bladder was emptied with catheter and the mass was gently reduced. Rectal tube was inserted during surgery. Afterward, we performed purse string suturing of vaginal wall in three rows as described by Baskaran using Vicryl 4/0 (Fig. 3) [3]. Vaginal catheter and bladder catheter were placed for 7 days. The patient went home uneventfully at 8th post operative day. On 1 month follow up, she did not have any recurrence (Fig. 4).

2. Discussion

Neonatal genital prolapse is a rare entity but well documented. The first description of genital prolapse is found on Ebers papyrus (1500 BC) which depicting prolapsed womb treatment by coating the protruded womb with honey and pressing it back to its place [4]. However, neonatal genital prolapse was not reported until 1723 and only few cases are reported in modern literature [2].

In 1917, Findley wrote a series that NGP is related with spina bifida in 86% of cases. In 1927, Noyes reviewed cases from literature and concluded that spina bifida was the primary etiology of NGP – the lower sacral nerve roots, particularly the fourth sacral are drawn through the lumbar vertebral defect then producing a partial or complete paralysis of pelvic floor muscle [5]. Other reported conditions which is related to NGP were hydronephrosis – which is

* Corresponding author. Tel.: +62 7113540888.
E-mail address: sindusaksono92@gmail.com (S. Saksono).
caused by in utero urethral obstruction, neonatal tetanus and in a patient after sacrococcygeal teratoma excision [2,6,7]. In this case, we were presented with NGP case without spinal anomaly.

Malpas in 1955 has classified the causes of genital prolapse into: (a) primary, which is caused by congenital abnormality or weakened pelvis and supporting tissue and (b) secondary, those caused by abnormal stress to a normally suspended genitalia (such as prolonged labor, birth trauma) [1,5].

Diagnosis of NGP is usually straightforward. NGP frequently presents within first few days of life. Usually pink to red fleshy mass is visibly protruded from introitus. The extent of genital prolapse is variable, ranging from mild vaginal protrusion to complete cervix and uterine prolapse. In vaginal wall prolapse, usually the form of the prolapsed mass is circumferential; and the external cervical os is usually seen at the upper end of mass with normal urethral orifice [1,2]. Diagnosis can be confirmed with restoration of normal anatomy after reduction of mass and association with spinal defect [2]. In this case we were presented with prolapsed vagina and uterus, and the circumferential pattern of the vaginal mucosa is clearly seen.

Differential diagnosis of interlabial mass in neonates include cervical and vaginal polypi, urethral prolapse, paraurethral cyst and rhabdomyosarcoma. Cervical and vaginal polypi are self limiting disease, and usually there is no cervical os at examination. Urethral prolapsed and paraurethral cyst usually associated with urinary symptoms [1,2]. Rhabdomyosarcoma, or botryoid sarcoma is characterized by fleshy and lobulated mass with necrosis and hemorrhage, and usually not associated with spinal deformities. The diagnosis is confirmed with tissue biopsy [8].

The prolapsed mass poses risk of inflammation and infection, hence, prompt reduction is generally accepted. There are several modalities known to manage genital prolapse. Sometimes, this condition only requires simple digital reposition. However, prolapse is usually more stubborn in children with spinal defect and sometimes simple reposition is not sufficient [3,5].

Fig. 1. Prolapsed vagina and uterus.

Fig. 2. Notable circular pattern of vaginal wall mucosa.

Fig. 3. Purse string suturing of vaginal wall.

Fig. 4. No prolapse recurrence on 1 month after surgery.
Vaginal plug made of gauze coated with antiseptic was described by Ellis in 1968. Meanwhile, in 1974, Dixon described the use of pessary for genital prolapsed in neonates using 1 inch rolled penrose drain with 1/0 silk attached to facilitate removal [9]. The pessary underwent several modification, such as using rubber nipple and foley catheter [1,10]. Temporary labial fusion was introduced by Ajabor and Okojie in 1967, in which they used hypertonic saline packs to reduce the edema and partially fused the labia by temporarily stitching the labia for 2 weeks with total resolution [11]. Other authors performed temporary labial fusion by using crepe bandage from lower abdomen to lower third of legs [12], and another one performed labial fusion by temporarily suturing labia majora with interrupted stitch for 2 months [13]. More radical approach such as uterine ventrosuspension and sacral cervicopyexy might be needed in recurrent prolapse. Hysterectomy or cervical amputation are rarely needed [1,2].

However, pessary method was known to be associated with vaginitis and temporary labial stitching might be not the most comfortable option for the baby and caregivers. We use purse string method as described by Baskaran using 4/0 Vicryl to anchor the vaginal wall to the surrounding structure [3]. A foley catheter was inserted to the bladder to protect urethra from injury. Thick bite is taken at the lateral vaginal wall and thin bite is taken at the anterior vaginal wall. We performed the purse string suture in 3 rows. To our knowledge, this is the second report to use method as described by Baskaran. On 1 month follow up, she did not have any relapse.

3. Conclusion

Neonatal genital prolapsed without spinal anomaly is uncommon. Reduction and purse string suture method for this condition is safe and relatively convenient.

References