Purse String Suturing in a Neonatal Prolapsed Uterus

D. Baskaran · P. Mohan · Nazeeb

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Abstract Prolapsed uterus in a newborn is a rare condition. We present our purse-string suturing as a new technique to restore it to its normal position to avoid complications. Prolapse is usually associated with congenital spinal defects, and is often resistant to simple reduction.

Keywords Neonatal uterine prolapse · Purse-string suturing technique

Introduction

To the best of our knowledge, purse-string suturing of vaginal wall for prolapsed uterus in a neonate has not been reported as a conservative management.

Patient and Method

A 1-day-old female child weighing 3,100 g was referred from PHC with congenital spinal defects and a mass protruding through the vagina. The child was delivered naturally and passed meconium and urine. She moved all her limbs. The perineum showed normal urethra and normal anal orifice with edematous prolapsed cx with lower 1/3 uterus. Prolapse worsened with crying. Ruptured meningocele with cerebrospinal fluid leak was identified in the lumbosacral region. Blood biochemical parameters were within normal

limits. Ultrasonography revealed no intra-abdominal anomaly. CT scan of the brain and the spine showed hydrocephalus and spina bifida. The edematous prolapsed mass was reduced through the vaginal introitus, but prolapse worsened with crying or straining and could no longer be easily reduced. She again underwent reduction of uterine prolapse under general anesthesia, followed by purse-string suturing of vaginal wall in two rows with 2–0 cat gut. A bladder catheter was kept to reduce intra-abdominal pressure for 5 days. Antibiotic was continued for 5 days. Perineum was kept dry and clean. Repair of the meningocele was planned after 5 days.

Results

Since the vagina is a tubular structure, the prolapse reduction with vaginal purse-string suturing successfully holds the uterus in place while the laxity of the pelvic floor subsides and allows permanent correction of the neonatal uterine prolapse. This method can reduce the incidence of urinary tract infection, cervicitis, and vaginitis. The prolapse resolved on the sixth day of life after the repair of the meningocele.

Discussion

Neonatal uterine prolapse is a rare condition occurring in neonates and is usually associated with spinal cord malformations [7]. Several modalities of treatment have been described. A prolapsed uterus carries increased risk of morbidity with progressing time, and inflammation in a newborn baby having associated with neurological, muscular, and spinal anomalies. Conservative treatment in the form of simple digital reduction and usage of a pessary has been attempted. A neonatal small-sized pessary is not

D. Baskaran (✉) · P. Mohan · Nazeeb
Dept. of Paediatric Surgery, KAPV Government Medical College,
Trichirappalli, Tamilnadu 620018, India
e-mail: debas_2000@yahoo.com

D. Baskaran
e-mail: drbaskarand@gmail.com

always available. A pessary can be fashioned from a rolled penrose drain with a silastic covering to maintain the reduction without tissue inflammation. Foley catheter No 8 F can be designed to act as a pessary, and it can be fixed to the vaginal wall with fixing suturing [1]. Vagina is a tubular structure; hence, a pessary does not always successfully hold the uterus in place. In the past, when simple digital reduction was not successful, operative treatment was recommended. One of the operative treatments recommended amputation of the cervix and complete hysterectomy or suture closure of the labia majora [2]. Another operative treatment was transabdominal uteropexy by fixing broad ligament to the abdominal wall. Newborn baby with prolapsed uterus without any associated spinal lesion also reported, and who was well after manual replacement of the prolapsed uterus [3]. The vagina and uterus can be restored to their normal position with a rubber nipple placed into the vagina [4].

this method is easy, effective, safe, and it can be recommended in suitable cases.

Outcome

The prognosis of the neonatal uterine prolapse depends on the associated neurological and skeletal abnormalities often resistant to simple reduction and is treated conservatively with two to three rows of Vicryl sutures. In a baby with very lax vaginal wall, one 8 F Foley can be kept and the bulb should be inflated to hold the uterus after suturing. The procedure can be repeated if it fails. Excellent prognosis results are seen in the babies without any associated skeletal and neurological anomalies. Outcome depends on the other surgical procedures done for the same baby, such as neurosurgical procedure, and results in a very poor prognosis.

Conclusion

During the surgical procedure, urethral and bladder injuries can be avoided and monitored by keeping 6 F or 8 F Foley catheter in the bladder. Thick bite from the lateral aspect of the vaginal wall and thin bite from anterior vaginal wall should be taken to narrow the vaginal canal. Accidental injury to the urethra during surgical procedure can be treated conservatively by keeping Foley for 7 days. Foley can be removed after 7 days.

Thus, conservative therapy with temporary support provides a satisfactory solution for newborn prolapsed uterus. It carries increased risk of morbidity with progressing time, and inflammation in a newborn baby having associated with numerous neurological, muscular, and spinal anomalies [5]. In the preantibiotic era, most such patients rapidly died because of the associated spinal defects [6, 7]. We feel that

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References

1. Dixon RE, Acosta AA, Young RL (1974) Penrose pessary management of neonatal genital prolapse. *Am J Obstet Gynecol* 119:855–857
2. Ajabor LN, Okojie SE (1976) Genital prolapse in the newborn. *Int Surg* 61:496–497
3. Sivanesaratnam V, Sinnathuray TA (1975) Procidentia in the Newborn. *Aust New Zeal J Obstet Gynaecol* 15(1):60–61 [Article first published online: 13 FEB 2008]
4. Carpenter SE, Rock JA (1987) Procidentia in the newborn. *Int J Gynaecol Obstet* 25(2):151–153
5. Finley P (1917) Prolapse of the uterus in nulliparous women. *Am J Obstet Dis Wom* 75:12–21
6. Noyes IH (1927) Uterine prolapse associated with spina bifida in the newborn with report of a case. *Am J Obstet Gynecol* 13:209–213
7. Johnson A, Unger SW, Rodgers BM (1984) Uterine prolapse in the neonate. *J Pediatr Surg* 19:210–211