Scientific Research Publishing

Open Journal of Pediatrics, 2023, 13, 69-73
https://www.scirp.org/journal/ojped
ISSN Online: 2160-8776
ISSN Print: 2160-8741

Uterovaginal Prolapse in the Newborn: A Case Report from the University Hospital of Conakry

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How to cite this paper: Keita, B., Sadou, S.M.L., Alpha, T.M., Saidou, B.T., Madiou, B.M. and Daniel, A.-P. (2023) Uterovaginal Prolapse in the Newborn: A Case Report from the University Hospital of Conakry. *Open Journal of Pediatrics*, **13**, 69-73.
https://doi.org/10.4236/ojped.2023.131008

Received: November 8, 2022
Accepted: January 8, 2023
Published: January 11, 2023

Abstract

Uterovaginal prolapse is an exceptional pathology in the newborn. It is defined by the descent and protrusion of the uterus and vaginal walls to the outside via the vaginal orifice. It particularly affects newborns with neural tube defects. The diagnosis is usually made at birth. Different types of conservative or surgical treatment have been suggested for genital prolapse in neonates. We report the case of a newborn of 6 hours of life who was received for congenital utero-vaginal without neural tube closure anomaly. He was successfully treated with digital reduction of the mass associated with a cerclage of the vaginal orifice. **Conclusion:** Digital reduction of the prolapse associated with a cerclage of the vaginal orifice is simple, effective and avoids any recurrence.

Keywords

Newborn, Utero-Vaginal Prolapsed, Congenital

1. Introduction

Uterovaginal prolapse is defined as the descent and protrusion of the uterus and vagina outward through the vaginal opening [1] [2]. It is a rare condition in newborns [3] [4] [5] [6]; diagnosis is usually made at birth or in the first few days of life [4] [7]. It is most often associated with neural tube closure anomalies, in particular myelomeningocele and spina bifida occulta [2] [3] [5]. Neonatal uterovaginal prolapse was first described by Conovius in 1723 [4] [8]. And since then, only 69 cases have been published in the literature until 2015 [8]. All available information is from clinical cases. Various treatment options have been suggested by different authors, including simple manual reduction, use of a pes-

sary, use of a Foley catheter or other self-retaining devices, and surgical treatment via conventional or laparoscopic routes [3] [4] [7] [8]. Here we present a neonate with congenital uterovaginal prolapse without central nervous system abnormality. We report in this case report the therapeutic particularity as well as a review of the literature concerning the etiopathogeny and the management.

2. Case report

A newborn female infant of D0 (H6) of life who was referred to our pediatric surgery department for congenital anomaly of the external genitalia. She is the 7th child of a consanguineous couple; the mother is a 30-year-old multiparous woman with no particular pathological history. The pregnancy was well attended; the baby was born after term (11 months) of a dystocic delivery by vaginal route. She weighed 3000 g, her height was 51 cm, her head circumference 33 cm and the Apgar was 10/10.

On clinical examination, she was in good general condition, she was awake and tonic with good reactivity; the archaic reflexes were preserved.

A reddish prolapsed mass was noted in the vulva between the labia majora corresponding to a complete unrolling of the vaginal wall and cervix (**Figure 1**). The urethral meatus was normal, the tone of the anal sphincter was preserved. There was no abnormality on the spinal column.

Therapeutically, after failure of digital reduction of the prolapse, the treatment consisted of manual reduction of the prolapse followed by cerclage of the vaginal orifice with 3/0 Vicryl (**Figure 2**).

The pelvic ultrasound performed at D6 (**Figure 3(a)** and **Figure 3(b)**) shows a normal echo-structure of the internal genitalia (uterus and appendages).

The clinical evolution was good without recurrence with a follow-up of 06 months (**Figure 4**).

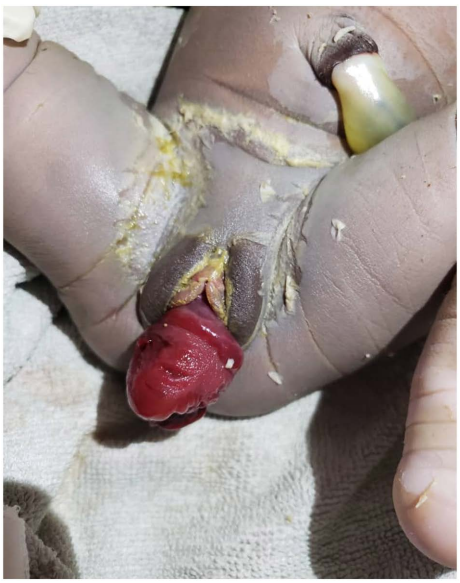


Figure 1. Uterovaginal prolapse at H6 of life.

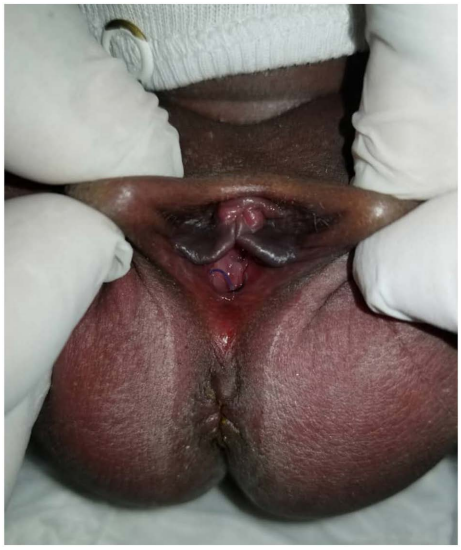
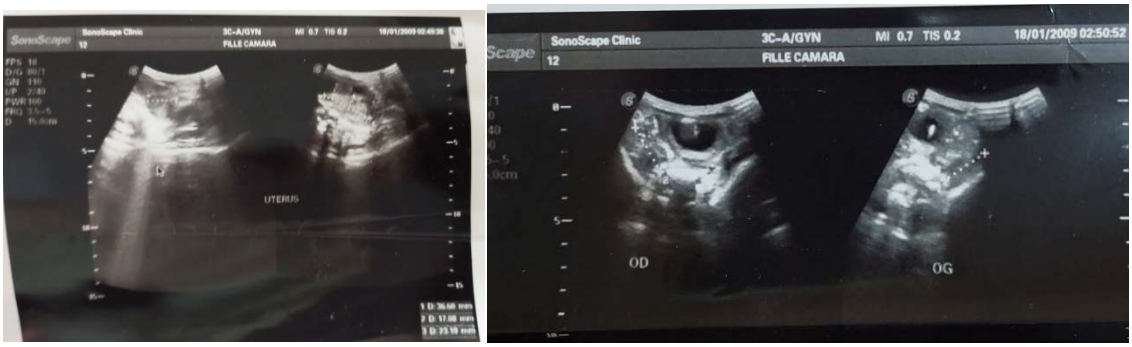


Figure 2. Reduction + cerclage of the vaginal orifice.



(a) (b)

Figure 3. (a) Image of the uterus; (b) Image of the Ovaries.

Figure 4. Aspect of the vulva at the age of 06 months.

3. Discussion

Genital prolapse is a functional pathology that affects the quality of life of many women [9]. It usually affects multiparous postmenopausal women [3] [5] [6]. Neonatal uterovaginal prolapse is a rare condition [4] [5]; it mainly affects new-

borns with congenital anomalies of the central nervous system in 82% to 86% of cases, in particular neural tube closure anomalies [5] [6]. Our patient is a case of congenital utero-vaginal prolapse without any central nervous system.

The mechanisms at the origin of utero-vaginal prolapse are not yet well elucidated. Many hypotheses are put forward with avenues of research [9]. The uterus and vagina are essentially supported by the pelvic diaphragm and the three densifications of the endopelvic fascia (cardinal ligaments, uterosacral ligaments and pubocervical fascia). Congenital uterovaginal prolapse results from weakness of the pelvic muscles and ligaments; this weakness may be secondary to congenital weakness of the pelvic musculature or to a defect in innervation [1] [4] [5]. The etiology of neonatal uterovaginal prolapse is not yet well known; however, certain risk factors are these include spina bifida, especially myelomeningocele, increased intra-abdominal pressure of the fetus, birth trauma, pelvic skeletal deformities or cervical anomalies [7].

Cases of neonatal genital prolapse without any neural tube closure abnormality have been reported (such as the case of our patient). The etiology of these has been attributed to birth trauma and associated increased fetal abdominal pressure and pelvic skeletal deformities. The diagnosis of UVP is clinical, based on the visualization of a red or pink mass protruding through the vaginal orifice corresponding to a complete and circumferential unwinding of the entire vaginal wall. The external cervical os is usually seen on the tip of the prolapsed mass [5] [6].

Cheng *et al.* reported a case of vaginal prolapse diagnosed prenatally at 20 weeks of gestation [10]. Although the clinical diagnosis of utero-vaginal prolapse is easy, the differential diagnosis is made in the presence of certain conditions such as: vaginal polyps, urethral prolapse, para urethral cysts and rhabdomyosarcoma [2] [5] [6]. Early management of utero-vaginal prolapse in neonates is important to prevent endometrial damage and metaplasia from prolonged environmental exposure [1] [4]. Various therapeutic modalities that can be conservative or surgical have been used in the management of utero-vaginal prolapse in neonates. Conservative treatment consists of digital reduction, use of a pessary, Foley catheter, or other self-retaining devices [1] [4] [6]. Zhiri H *et al.* [6] successfully used digital reduction of utero-vaginal prolapse in a neonate; Abdel Salam *et al.* [11] reported successful management of utero-vaginal prolapse in a neonate using a Foley catheter placed in the vagina for two weeks. Other authors have successfully treated utero-vaginal prolapse in neonates using digital reduction and cerclage of the buttocks with a Siren-like bandage sparing the anus [1] [4]. The reported success rate with conservative management is over 90%. The main disadvantage of this conservative management is the recurrence of the pathology [1] [4]. There is no standard surgical treatment for neonatal uterovaginal prolapse. Surgical procedures such as uterine ventrosuspension, cervicopexy or abdominal sacrocolpopexy have been used in cases of recurrence [1]. Yoshida M *et al.* [3] successfully treated a case of utero-vaginal prolapse associated with myelomeningocele by performing laparoscopic hysteropexy.

Our patient was successfully treated by digital reduction of the prolapse and cerclage of the vaginal orifice. Aggressive surgical procedures such as hysterectomy and cervical amputation are practices of the past and should not be applied today in children and young women [3] [4].

4. Conclusion

Uterovaginal prolapse is an exceptional pathology in the newborn. It is often associated with neural tube closure anomalies. Digital reduction of the mass associated with cerclage of the vaginal orifice avoids recurrences and allows to obtain a better result; the prognosis of this affection is in general excellent.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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