

Case Report

Hematometrocolpos secondary to distal vaginal obstruction following childbirth: A Case Report from Monze Mission Hospital, Monze, Zambia

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ABSTRACT

Vaginal outlet obstruction commonly occurs with congenital anomalies resulting in accumulation of menstrual blood in the vagina or both vagina and uterine cavity. Childbirth injuries such as cervical, vaginal and perineal lacerations as well as episiotomies are common and may result in complications like vaginal stenosis and excessive perineal scarring. Reported here is a rare case of complete occlusion of the vaginal introitus secondary to a badly healed injury resulting from childbirth.

INTRODUCTION

Hematocolpos is the collection of menstrual blood in the vagina while Hematometra is when menstrual blood collects in the uterine cavity. Accumulation of menstrual blood in both uterus and vagina is referred to as Hematometrocolpos. Hematocolpos or Hematometrocolpos is usually encountered with congenital obstruction of the vagina such as vaginal atresia, cervical atresia, uterus didelphys, transverse vaginal septum, longitudinal vaginal septum and imperforate hymen¹. Imperforate hymen has an approximate incidence of 0.5-1 per 1000 women^{2,3} while vaginal atresia occurs in 1 in 5,000-10,000 live female births⁴. While vaginal stenosis

secondary to acquired causes is common, complete vaginal obstruction is rare. Common causes of acquired vaginal stenosis include trauma, such as from childbirth, surgery, sexual assault, severe infection and post radiotherapy. We present a rare case of Hematometrocolpos due to distal vaginal obstruction secondary to childbirth injury.

CASE REPORT

A 25-year-old Para 2 presented to our hospital in March 2020 with complaints of amenorrhea and apareunia six months post-delivery. She delivered via Spontaneous Vaginal Delivery (SVD) at her local clinic but she sustained a perineal injury which was sutured immediately after delivery. However, she noticed difficult penetration during sexual intercourse and her menses had not resumed, though she reported experiencing regular monthly cyclical lower abdominal pains. She was not on any contraceptives.

When she was examined, she was found to have an enlarged uterus of approximately 28 weeks size (Figure 1). Vaginal examination revealed an obliterated vaginal introitus with perineal scarring (Figure 2). An abdominal ultrasound examination revealed presence of Hematometra and hematocolpos (Figure 3).

Keywords: *Episiotomy, Hematocolpos, Hematometrocolpos.*



Figure 1. Enlarged Uterus palpable on abdomen: size 28/40

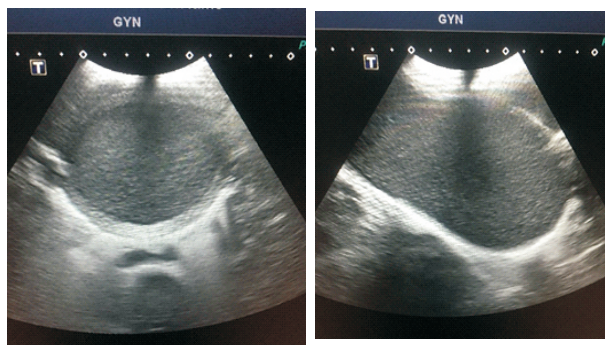


Figure 3. Transabdominal ultrasonographic views showing the markedly distended uterus. (Left) Transverse view, (Right) Longitudinal view

She underwent Drainage of the hematometra and hematocolpos under spinal anesthesia in theatre by first grasping the labial fold with two Allis forceps on each side, followed by a 1cm longitudinal incision in the midline to open the vaginal introitus. Approximately 2000 ml of old blood was drained from the vaginal and uterine cavities (Figure 4).



Figure 2. Obliterated Vaginal Introitus prior to Surgery

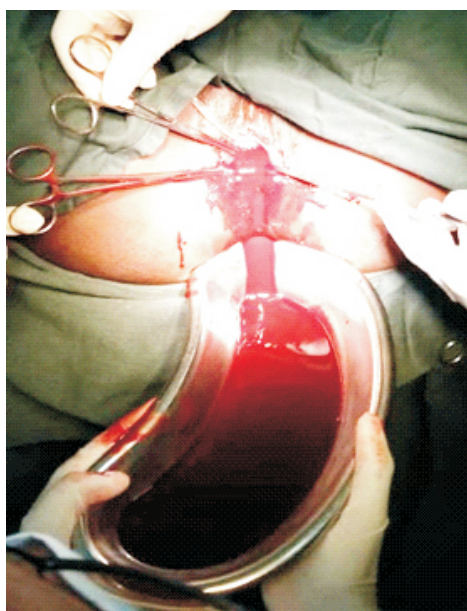


Figure 4. Drainage of Hematometrocolpos

Excess fibrous tissue was excised and the labial skin pulled up inside the vagina near posterior fourchette was additionally released and the cicatrized tissue was removed. With a size 18 mm Hegar cervical

dilator passed into the vaginal, the vaginal mucosa and skin were approximated using vicryl 2-0 interrupted stitch (Figure 5). She was discharged on day 3 post-operative and advised vaginal dilatation for three months. She was reviewed at three- and six-months post-surgery and the vagina was found to be patent and she reported having a normal menstrual flow as well as satisfactory sexual intercourse.



Figure 5. A patent vagina re-established

DISCUSSION

Injuries to the genital track during childbirth are common especially if delivery is unassisted or is poorly conducted⁵. Such injuries heal without complications if they are treated promptly like suturing lacerations using principals of reconstructive surgery. However, if genital injuries sustained during childbirth are not sutured or are sutured incorrectly, complications such as excessive perineal scarring or vaginal stenosis may occur. Severe scarring may also be a consequence of infection at the site of injury. It is therefore recommended that antibiotics are routine prescribed where risk of infection is high in the post repair period. Such complications can lead to pain during sexual intercourse and sometimes difficulty or

inability to penetrate the vagina by a male partner like was the case with our patient presented in this case report. It is therefore important that as we strive towards increasing skilled attendance at birth, skills to conduct delivery, identify genital injuries and skills to correctly suture them are emphasized. Where the skills to repair complex childbirth injuries such as obstetric anal sphincter injuries (OASIS) are not available, prompt referrals must be made to a center where such injuries can be competently repaired to avoid morbidities like the one our patient presented in this case report had.

Acquired causes of complete vaginal obstruction are rare compared to congenital causes. Even though birth injuries are among the commonest cause of acquired vaginal stenosis, a case of complete vaginal obstruction similar to the one presented in this case report was reported in a 21-year-old postpartum woman, whose vagina was packed with a cloth soaked with caustic soda in an attempt to control bleeding following a home birth⁶. Vaginal stenosis in this particular case was attributed to chemical vaginitis caused by caustic soda. It is therefore important to avoid putting chemicals that can cause severe inflammation in the vagina.

While mild degrees of vaginal stenosis may be managed conservatively, severe cases of stenosis or complete vaginal obstruction whether due to congenital or acquired causes require surgical correction. Surgery is required to widen the vagina, re-establish patency to drain accumulated menstrual blood and restore sexual function. Methods commonly used for vaginal reconstruction includes Mc Indoe's Vaginoplasty and its various modifications. Surgical correction of vaginal constriction or distal obstruction from acquired causes is not well described. Consensus is lacking on what the minimal length of a vagina must be to preserve normal sexual function, and no standard exists in regard to normal vaginal caliber. However, it is generally recognized that for a successful return to sexual function after surgery for vaginal constriction, the vaginal opening should easily admit two fingers during examination⁷. In the

postoperative period, the use of vaginal moulds and vaginal dilators helps in decreasing the scarring and stenosis of the surgical site and improves the vaginal caliber. Postoperative vaginal dilation is critical to the success of the vaginal reconstructive surgery⁸.

CONCLUSION

Childbirth injuries commonly occur with unassisted or poorly conducted deliveries and if not well managed, they can result in severe morbidities and complications that can mimic congenital anomalies. These cases of acquired vaginal stenosis or complete obstruction can be prevented by adequate training of health care workers who conduct childbirth.

Conflict of Interest

No conflict of interest to declare.

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