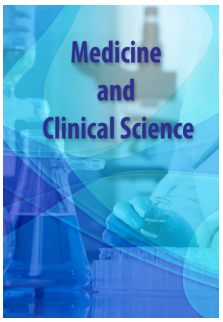
Medicine & Clinical Science

Case Series



Vulvar Hematomas Following Delivery Requiring Transport to Tertiary Care Facilities: Case Series and A Review

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Introduction

Deliveries are often conducted in Clinics in Japan. We present two cases of vulvar hematomas following delivery that necessitated emergency transport to tertiary care facilities due to limitations in management capabilities at our institution.

Case presentation

Case 1

The first case involved a 26-year-old woman with 2 gravida and 1 para. She was 157 cm tall with a pre-pregnancy weight of 52 kg. Her medical histories were molar pregnancy and atopic dermatitis. No particular abnormalities were noted during pregnancy.

She was admitted at 38 weeks and 5 days of gestation with labor pains and underwent a 19-hour 53-minute labor resulting in a spontaneous vaginal delivery. The infant weighed 3,066g, was 49.5cm long, male, with Apgar scores of 10/10.

She sustained perineal tear during delivery, which was repaired with continuous buried sutures using #2-0 vicrylrapide. The total blood loss during delivery was 840g including amniotic fluid.

Three hours after delivery, she complained of lower back pain and difficulty walking. Upon examination, a left vaginal wall hematoma was noted. Her blood pressure was 118/71 mmHg with pulse rate 88 beats per minute. She was transported to a tertiary care facility by ambulance and CT scan revealed a 6cm hematoma. Fluid resuscitation and compression with gauze were initiated, and no advance of hematoma was confirmed. Then she was transferred back to our hospital the next day without an increase in hematoma size. On the fourth day postpartum, her hemoglobin level was 9.4 g/dL, and she was discharged safely.

Case 2

Second case was about a 31-year-old woman with 2 gravida and 2 para. She was 153 cm tall with a pre-pregnancy weight of 43 kg. She had no significant medical history. There were no complications during her pregnancy. She was admitted at 40 weeks and 5 days of gestation with labor pains. After a 5-hour 32-minute labor, she delivered spontaneously. The infant weighed 3,060g, was 48cm long, male, with an Apgar score of 9/10. She sustained a perineal tear during delivery, which was repaired with #2-0 vicrylrapide.

Subsequently, continuous bleeding and abdominal pain persisted. One hour after delivery, she experienced a hemorrhage of 1100g, with a blood pressure of 77/44 mmHg and a pulse rate of 125 beats per minute, indicating a state of shock due to bleeding. She received intravenous administration of oxytocin and ergometrine. Subsequently, a laceration of the left vaginal wall was identified, but symptoms did not improve despite compression with gauze. With a total blood loss of 3400g, she was transported to a tertiary care facility. CT scan revealed a retroperitoneal hematoma, and she underwent laparotomy for hematoma evacuation and hemostasis.

Discussion

Vulvar hematomas are relatively common complications in obstetric care [1]. These hematomas occur due to damage or rupture of the vulvar tissues during delivery.

Major causes include i) Excessive stretching or compression of the vulvar tissues during delivery, ii) Trauma to the vulvar tissues from instrument use (forceps, vacuum extraction, etc.), iii) Rapid childbirth, especially when shoulder dystocia or rapid dilation of the birth canal occurs, and iv) Episiotomy during delivery. These factors can lead to vascular damage in the vulvar region, increasing the risk of hematoma formation.

Treatment approaches for vulvar hematomas are conservative therapy involving the use of cold packs, local compression, rest, and pain management [2]. This approach is appropriate for small hematomas or mild symptoms. However, surgical intervention involve drainage, angiographic embolization or surgical

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repair is sometimes required for large or severe hematomas [3]. Additionally, pharmacotherapy with Nonsteroidal anti-inflammatory drugs (NSAIDs) or analgesics may be used for inflammation and pain management [4]. Treatment selection should be based on the severity of symptoms and the patient's overall health. Early diagnosis and appropriate treatment of vulvar hematomas are crucial for minimizing the risk of complications.

The progression of anemia caused by vulvar hematomas varies depending on the case. Generally, if the hematoma is small and bleeding is mild, the progression of anemia may not be severe. However, in cases of large hematomas or significant bleeding, anemia can become a serious issue, especially if the mother already has anemia tendencies post-delivery or if there was significant blood loss during childbirth. Additional bleeding from vulvar hematomas can accelerate the progression of anemia [5]. Prompt diagnosis and appropriate treatment are essential for preventing the progression of anemia due to vulvar hematomas. Specific data on mortality rates associated with vulvar hematomas are limited. However, previous study showed 0.47% of the morbidity of puerperal hematomas [4]. Often, the path to mortality related to vulvar hematomas is complex and intertwined with other complications and medical conditions.

Table 1. *Cause of maternal transfer to tertiary care facilities (Data in Tokyo, 2015)*

Cause	%
hemorrhagic shock	31.2
DIC	16.2
Severe pain	8.7
Loss of conscious	6.4

Therefore, appropriate transfer to tertiary care facilities is crucial in such situations. In Japan, postpartum hemorrhage is the leading cause of maternal transport to tertiary care facilities (Table 1) [6]. Japan boasts an extremely low maternal mortality rate during the perinatal period, which is thought to be due to the effective functioning of maternal transport services. Both cases in this study were safely managed after transport. Vulvar hematomas can be potentially life-threatening conditions, as described in this paper, and prompt intervention is believed to significantly influence the prognosis.

In conclusion, this manuscript provides a comprehensive overview of the cases of vulvar hematomas following delivery and pertinent discussions regarding causes, treatment, progression of anemia, mortality rates, and the current status of maternal transport in Japan. Postpartum hematoma is a serious, sometimes life-threatening condition. Therefore, appropriate patient care and timely transport to a tertiary care facility are important.

References

1. Kawashima M, Tokushige H. Analysis of puerperal hematoma: a retrospective study. J Rural Med. 2021;16(3):139-42.
2. Propst AM, Thorp JM, Jr. Traumatic vulvar hematomas: conservative versus surgical management. South Med J. 1998;91(2):144-6.
3. Zahn CM, Hankins GD, Yeomans ER. Vulvovaginal hematomas complicating delivery. Rationale for drainage of the hematoma cavity. J Reprod Med. 1996;41(8):569-74.
4. Tilahun T, Wakgari A, Legesse A, Oljira R. Postpartum spontaneous vulvar hematoma as a cause of maternal near miss: a case report and review of the literature. J Med Case Rep. 2022;16(1):85.
5. Omotayo MO, Abioye AI, Kuyebi M, Eke AC. Prenatal anemia and postpartum hemorrhage risk: A systematic review and meta-analysis. J Obstet Gynaecol Res. 2021;47(8):2565-76.
6. Health TMGBoP. Cause of maternal transfer to tertiary care facilities 2015 [Available from: https://www.hokeniryo.metro.tokyo.lg.jp/iryo/kyuukyuu/syusankiiryo/syusanki_kyougikai/28kyougikai.files/10-1.pdf.