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Case Report

Intrapartum vulvovaginal haematoma causing obstructed labour: an obstetricians nightmare

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ABSTRACT

Vulval hematoma during pregnancy is a rare event. Typically, they arise as a result of postpartum trauma. Rarely do hematomas of this type develop spontaneously during labour without any obvious underlying cause for the same. Prompt recognition and timely drainage of the hematoma helps to prevent any untoward complication and leads to speedy recovery.

Keywords: Vulval hematoma, Pregnancy, Case report

INTRODUCTION

An accumulation of blood within the vulva leads to formation of vulval hematoma. The vulva is soft tissue mainly composed of smooth muscle and loose connective tissue and is supplied by branches of the pudendal artery. A hematoma is defined as a blood collection under an intact epidermis that manifests as a swelling, fluctuant lump. Due to its rich blood supply, the vulva is highly vulnerable and prone to formation of hematoma. Although venous bleeding is possible, arterial bleeds mainly originate from one of the branches of the pudendal artery.[1] The incidence of vulvar hematoma ranges from 1:300 to 1:1000 deliveries.[2]

A vulval hematoma during labour can be resulting from either direct or indirect soft tissue damage. Examples of causes of direct injuries include episiotomy, vaginal laceration repairs or instrumental deliveries, while indirect injury can result from extensive stretching of the birth canal during vaginal delivery.[3] Instrumental delivery, episiotomy, primiparity, protracted second stage of labour, macrosomia, use of anticoagulants, coagulopathy, hypertensive disorders of pregnancy and vulvovaginal varicosity are risk factors for developing vulval hematoma.[4] Prompt detection is essential for lowering the associated morbidity, enhancing patient outcomes and cutting down on hospital stays.[5] Interestingly, most vulval hematomas are formed after a normal delivery instead of complicated deliveries. But in this case report there is spontaneous formation of vulval hematoma before the delivery (2nd stage of labour) which puts the obstetrician in a great dilemma in order how to go ahead with the management of such a case.

CASE REPORT

A 28-years-old Russian nulliparous patient attempting home delivery at term presented to our tertiary care centre in labour with an uncontrollable urge to push for one hour, followed by a sudden onset painful swelling in the genital region. There was no history of instrumentation/ history suggestive of bleeding disorders.

On examination the patient was pale with tachycardia but was normotensive. The uterus was contracting well. The foetus was in cephalic presentation with a good foetal heart rate. There was a large 10×10×8 cm vulvovaginal haematoma along the right labia majora, obliterating the vulval outlet extending into the lower vagina. There was no evidence of vulval varicose veins. On gentle vaginal examination cervix was fully dilated, vertex at 0 station.

Patient's Hb was 9.5 gm% and her coagulation profile was normal. Resuscitation of the patient with blood products was commenced. A decision was made to drain the haematoma in operation theatre following which a vaginal delivery ensued uneventfully. Baby weight was 2.9 Kg. Around 300 ml of blood was drained.

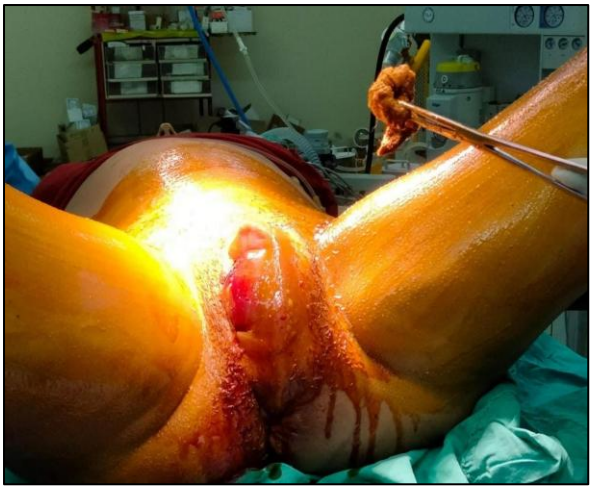

Figure 1: Large 10×10×8 cm vulvovaginal haematoma.

The perineum was then reconstructed, cavity obliterated with vicryl 2-0 mattress sutures and the skin sutured with vicryl rapid interrupted sutures. Foley's catheter was inserted for bladder drainage. Total blood loss was 800 ml. The patient was started on antibiotics and analgesics postnatally. She had an uneventful postnatal period.

DISCUSSION

The rarity of intrapartum haematoma meant we had to navigate through uncharted territory. A decision to offer a vaginal delivery to the patient, following drainage of the haematoma risked further trauma to the perineum. After a quick risk assessment of the maternal and neonatal morbidity of a caesarean section at full dilatation, in a patient already haemodynamically compromised, also having discussed the options with the patient including the pros and cons we offered her a vaginal delivery. In retrospect, we are happy to say that the gambit paid off. The literature is limited to a few recorded cases. There are no general management guidelines exist due to its rarity. In our situation, the vulval hematoma developed on its own before delivery without the use of any instruments. In this case the patient was primiparous however none of the other factors are applicable.[6]

Another clinical dilemma encountered was the mode of analgesia. The large, painful vulvovaginal haematoma meant that it would be difficult to position the patient for regional anaesthesia. Administering general anaesthesia would mean having to perform an instrumental vaginal delivery and subjecting the patient to further risk of trauma. We thus sought the middle ground, using a combination of local anaesthesia and inhalational agents for the drainage of the haematoma and the delivery, supplemented later by regional analgesia for the reconstruction of the perineum and post operative pain relief.

Hence, the size, extent of the hematoma's expansion, the patient's hemodynamic condition and the availability of medical resources all play a vital role in how vulval hematomas should be managed. Small non-expanding hematomas will mostly resolve with expectant management which includes ice packs, sitz bath, antibiotics and even blood transfusion if needed in addition to administration of suitable analgesia or painkillers. Explorative surgery or selective arterial embolization are two surgical treatment options. Massive and expanding hematomas necessitate surgical surgery, which involves ligating the bleeding vessels to attain haemostasis, eliminating the dead space and then packing the vaginally to compress the offending location. A treatment option in the event that surgical management fails is arterial embolization.[6]

So vulval injury trauma scoring systems should be established in order to clear guidelines on the management of hematomas. This will allow patients who report to the emergency room receive early treatment and care. More such instances must be reported in order to make evidence-based decisions about the route of delivery.

CONCLUSION

As obstetricians we are faced with daunting, seldom encountered scenarios, however a calm approach, careful risk benefit analysis and adherence to basic tenets of obstetrics go a long way to ensuring an optimal outcome.

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