

Case Report

UNUSUAL CASE OF SPONTANEOUS UTERINE ARTERY RUPTURE IN VAGINAL DELIVERY

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ABSTRACT

Broad ligament hematoma is a rare complication after normal vaginal delivery. It may remain silent or symptomatic depending upon the amount of blood loss. It can be managed conservatively or by surgical exploration according to the patient's conditions. Here, we report a rare case of spontaneous uterine artery rupture leading to broad ligament hematoma in a case of Vaginal Birth after Caserean section (VBAC).

Keywords: *Broad Ligament Hematoma, Previous LSCS*

INTRODUCTION

Broad ligament hematoma results from a tear in the upper vagina, cervix or uterus that extends into uterine or vaginal arteries. Incidence of broad ligament hematoma is 1: 20,0009 (Keith, 1999). It is most commonly associated with precipitate labour, caesarean section, trauma and instrumental vaginal delivery. It is a potentially life threatening condition if not diagnosed timely. Here, we report a case of Right sided broad ligament hematoma which occurred following VBAC.

CASES

We report a booked case of a 30 year female G2P1L1 at 38week+6day gestation came in active labour with previous LSCS which was done 8yrs back for fetal distress. Post-op period was uneventful. She progressed well to 2nd stage of labour. However, due to persistent fetal bradycardia in 2nd stage it was decided to deliver the baby by ventouse application. A male baby of 3.2 kg was delivered. Placenta was delivered in to and there was no postpartum hemorrhage or extension of episiotomy incision. Immediately after delivery she complained of persistent pain abdomen, her pulse rate was 114/min and BP 110/80 mm of Hg. On per abdomen examination, uterus was found to be of 24 week size, well contracted but deviated to left side.

On bimanual examination, cervix was found to be pulled up. A boggy mass of around 6x6 cm was found on right side of uterus pushing it towards left side. However, there was no bleeding per vagina, no tear in cervix or vagina.

Suspecting a broad ligament hematoma IV crystalloid infusion was started. Blood samples were drawn for coagulation profile, cross matching and arranging blood. In the mean time patient's PR rose to 124/min and BP was 100/70 mm of Hg. The mass on right side of uterus was found to be increasing in size and was around 10x6 cm but still there was no external bleeding. Keeping the possibility of scar dehiscence or rupture leading to the increasing size of hematoma and persistent tachycardia, early decision of laparotomy was taken.

On laparotomy a right side broad ligament hematoma of around 5x5cm was seen along with extravasation of blood into anterior surface of lower segment of uterus (Figure 1). Previous LSCS scar was found to be intact.

Hematoma was drained after opening the anterior leaf of broad ligament, around 500cc clotted blood were removed. There was bleeding from right uterine artery which was ligated. Few hemostatic sutures were taken over broad ligament. Ovarian artery was also ligated as a precautionary measure. Posterior surface of uterus was also inspected and was found to be intact. She received one unit of blood transfusion intra operatively. Post-operative period was uneventful requiring no ICU stay and was discharged on 6th post op day.

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Figure 1: Right Sided Broad Ligament Hematoma with Anterior Extravasation

DISCUSSION

Broad ligament hematoma is a rare but dreaded complication of third stage of labour. It is very uncommon after vaginal delivery. Clinical symptoms can be quite vague. Most patients present with persistent postpartum localized pelvic pain, fullness or discomfort or a sudden drop in hematocrit without any apparent external bleeding (Murali *et al.*, 2014). Ultrasound imaging can confirm the diagnosis, but a high level of vigilance and clinical suspicion is required.

First line management of Broad ligament hematoma is to maintain oxygen saturation and hemodynamic stability by crystalloid, colloid and blood transfusion along with close vital monitoring. If conservative measure fails then surgical intervention should be tried. Uterus preserving surgery should be done by identifying and ligating the bleeding vessel and achieving hemostasis (Gilstrap *et al.*, 2002). In case it also fails then internal iliac artery ligation and ultimately hysterectomy (Maxwell *et al.*, 1997) can be done as a lifesaving procedure. Wherever, facility is available Uterine artery embolization should be tried as proposed by Muthulakshmi *et al.*, (2003).

Our case presented a different challenge because unlike the usual occurrence there was no trauma or extension of episiotomy or any vaginal wall tear that could have caused the hematoma. In our case hematoma was diagnosed minutes after placental delivery which reduced the morbidity drastically as patient was discharged on 6th post-op day in a stable condition. In previously reported cases till date the patients were diagnosed 12 to 24 hours after delivery generally in poor condition and needed multiple blood transfusions.

But our patient required only one blood transfusion intra operatively as blood loss was mild because of early and prompt diagnosis. Conservative management with monitoring is recommended in a hemodynamically stable patient but our case significantly differed as it was a vaginal delivery after previous LSCS where Scar rupture was suspected to be the cause of hematoma. But on laparotomy scar was found to be intact. Thus, after excluding all possible causes of hematoma, we considered it to be a case of spontaneous uterine artery rupture leading to broad ligament hematoma.

Conclusion

Regular antenatal care, institutional delivery with proper monitoring and skilled personnel for dealing acute complication is the mainstay of handling obstetrical emergencies. Early diagnosis and prompt management not only saves the patient's life but also reduces the morbidity.

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