



Post Partum Etraperitoneal Pelvic Hematoma: A Rare Complication after Vaginal Delivery

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Introduction

Postpartum hematomas are defined as collection of the blood in genital tract after cesarean delivery or vaginal delivery. Most postpartum hematomas arise from the lacerations of the genital tract due to operative vaginal delivery or due to injury to the pelvic blood vessels. Hematomas are divided into three broad classes vulvar, vaginal, subperitoneal hematoma. Postpartum pelvic haematomas are very rare after a normal vaginal delivery. The clinical features of the postpartum hematoma may vary from incidental finding on pelvic examination or ultrasonography to the life-threatening bleeding detected with few hours of delivery (<24 hour). Lacerations leading to bleeding are major risk factors for formation of hematoma which occur from an operative vaginal delivery and injury to blood vessels of the pelvis due to uterine evacuation or perforation. Other risk factors include big baby, prolonged labour, multifetal gestation, coagulation disorder, vulvar varicosities. A postpartum hematoma is considered life threatening when it compromises the hemodynamic status and cardiovascular stability of the patient. Management guidelines of pelvic hematomas are not well established because

they are rare hematomas. Management option for small hematoma is conservative with watchful expectancy and large expanding hematomas are managed with emergent laparotomy. In this study we report a rare case of postpartum extraperitoneal pelvic haematoma after an uneventful vaginal delivery which was managed successfully by laparotomy.

Case Report

A young woman presented in emergency with complaints of labour pains. Patient was examined and admitted to labour room for further management. The course of labour was uneventful and patient delivered a healthy baby via normal vaginal delivery. Postpartum period was uneventful and patient was discharged after 48hrs in healthy condition. Patient reported back after 2 weeks with complaints of difficulty in passing urine, tenesmus and pain abdomen. Vitals were stable. On examination pallor was present and on per abdomen no mass palpable, on per speculum examination vagina and cervix was healthy with no evidence of injury and lochia was healthy and non-foul smelling. On per vaginum examination a mass of 8*8cm felt in pouch of Douglas, uterus

was not felt separately. Mass was immobile, non tender, no cervical motion tenderness was present . same mass felt on per rectal examination. A ultrasound was done and it showed a pelvic collection of 9.3*8.3cm along with the posterior wall of uterus in pouch of douglas with thick septations in it. Patient underwent a exploratory laparotomy followed by adhesiolysis and evacuation of the hematoma. 1 unit of blood transfused. Patient was discharged on 6th pod after recovery. Post operative period was uneventful.

Discussion

Extrapelvic Postpartum hematomas are very rare. Most pregnancy related hamtomas are usually vulvar and vaginal hematomas. Onset of postpartum hematoma can be acute or subacute and clinical presentation also vary from minimal feature such as pain abdomen to major features such as hemorrhagic shock. It has been seen that incidence of puerperal hematomas is low also the incidence of the major pelvic hematoma is even very low which lies between 1:500 to 1:900. There is a very limited literature is available on extrapelvic postpartum hematoma.

Division of puerperal hematomas is done in three broad categories: (1) vulvar hematoma (2) vaginal hematoma and (3) subperitoneal hemtoma .

Most commonly encountered hematoma in postnatal period is vulvar hematoma. Vulvar hematoma are usually formed after the bleeding from the laceration or after episeotomy or due to the injury to the pudendal vessels or its tributries after operative vaginal delivery. Vulvar hematomas are localised in posterior and anterior urogenital triangles. Expansion of vulvar hematoma is limited anteriorly by colles fascia, posteriorly by perirectal and anal fascia due to which these hematomas present as painful bluish purple swelling. Vulvar .hematoma usually occurs below levator ani muscle. These hematomas are usually self limited but when left untreated they may become potentially fatal. These hamatomas are mostly diagnosed by physical examination sometimes ultrasound, CT/MRI can be done for

size and site of a large hematoma. Small hematomas can be managed conservatively and in large hematomas surgical intervention and evacuation can prevent spontaneous skin rupture. Vaginal hematomas are also encountered after delivery. These are formed due to the collection of the blood in vaginal and paravaginal tissue . Such hematomas generally occurs above the levator ani muscle. Major risk factors for formation of vaginal hematoma arecervical tears, vaginal tears, and large episiotomies which lead to injury to the branches of the hypogastric arteries, descending branch of the uterine artery, the the pudendalartery, and vaginal artery. Collection of the blood can occur in paravaginal space. Extention of the bleeding from these vessels is limited superiorly by the cardinal ligament, inferiorly by levator ani muscle, medially by the vagina, laterally by the obturator internus muscle. Medial expansion of the hematoma can occlude the vagina. Common presenting complaint is pain with sometime difficulty in passage of urine and motion in case of large hematomas. Diagnosis is made usually on physical examination with presence of tender swelling in vagina. Radiological investigations may do to look for size and site of hematoma. Usually managed by evacuation of hematoma.

Retroperitoneal and retrorectal hematomas are uncommon following vaginal delivery but potentially may occur as life-threatening hemorrhagic complication. Injury to branches of the hypogastric and ovarian vessels leads to the formation of the life threatening hematoma. sometimes posterior vaginal lacerations can rupture pelvic blood vessels, leading the collection of the hemorrhage that expands into the retroperitoneal space. Hematomas in the retroperitoneal space can conceal a large amount of blood in perivesical, parametrial and perirectal spaces. Clinical presentation may vary from persistent abdominal pain and rapidly developing anemia. Diagnosis of retroperitoneal hematoma is based on the clinical and paraclinical findings. Its diagnosis require a high degree of suspicion.

Laparotomy is considered the procedure of choice, in life threatening cases.

The first investigation modality of choice for accurate diagnosis of a pelvic and abdominal hematoma is ultrasonography. More complex and life threatening cases require a CT scan with an arterial phase to look for an active bleeding.

Generally conservative management is recommended for small hematomas of less than 3–5 cm. Careful monitoring of further expansion should be done and blood transfusion, analgesics, and antibiotics administered if necessary. The hematomas which are larger in size (greater than 5 cm) are usually managed with surgical intervention such as evacuation, drainage and ligation of bleeding vessels which will lead to complete hemostasis.

Early recognition, evaluation, and expeditious intervention can be lifesaving in a patient with a hematoma. Hemodynamically unstable and patients with pressure symptoms resulting in compartment syndrome require resuscitation and surgical exploration as first line of treatment. In hemodynamically stable patients embolization is another management option for an expanding hematoma.

Conclusion

The awareness of postpartum hematoma is lacking because of vague clinical presentation. Sometimes symptom may develop soon after delivery or sometimes may develop after several day as we discussed in our case. Hence in patients with persistent abdominal pain a differential diagnosis of pelvic hematoma should be kept in mind and in patients with signs of hemorrhagic shock after delivery possibility of postpartum hematoma should be taken into consideration after ruling out the postpartum hemorrhage.

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