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# CASE STUDY OF A PARAVAGINAL HAEMATOMA FOLLOWING VAGINAL DELIVERY

Obstetrics & Gynaecology

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## ABSTRACT

We present the case of a primigravida who had an induced delivery for mild IUGR at 38+6weeks. She had a normal vaginal delivery with right mediolateral episiotomy and minimal vaginal bleeding. She complained of increasing rectal pain in the postpartum period. Vaginal examination revealed a large left sided vaginal haematoma with intact episiotomy wound site.The haematoma was evacuated ,wound exploration done and sutured in layers. Vaginal packing was done. Postoperatively she again complained of rectal pain. Urgent CT scan confirmed finding of a large left pararrectal haematoma with possibility of small left broad ligament extension. She was managed conservatively with vaginal and rectal packing, analgesics,intravenous antibiotics and 3units of packed red cell transfusion. Follow up ultrasound showed reduction in the size of the haematoma and eventual resolution. This case supports the conservative management of even large paravaginal haematomas, when surgical evacuation is technically difficult as long as the patient is clinically stable.

## KEYWORDS

## INTRODUCTION

Paravaginal haematomas are common but are rarely large enough to cause severe postpartum haemorrhage. Typically, they arise following trauma from the fetal head, shoulders, internal manoeuvres or instrumental delivery and are recognised through symptoms of pain, swelling or pressure and signs of a unilateral palpable mass or fluctuant swelling. Their incidence varies with the methods used to diagnose them. Literature review has revealed that the incidence of puerperal haematomas varies from 1:309 to 1:1500 deliveries.(1)

Depending on their relationship to the levator ani muscle, paravaginal hematomas are classified as supralevator and infralevator hematomas (Figure 1). Infralevator hematomas lie in the inferior portion of the pelvic compartment and can spread to the vulva , perineum, and ischiorectal fossa, which facilitates a fast, easy diagnosis by means of gynecologic examination. Supralevator hematomas are more difficult to identify, and the diagnosis may be delayed, because they extend superiorly through the broad ligament toward the pelvic retroperitoneal space and are not associated with external vaginal bleeding. This difficulty can lead to underdiagnosis of the hematoma until the patient shows signs of shock

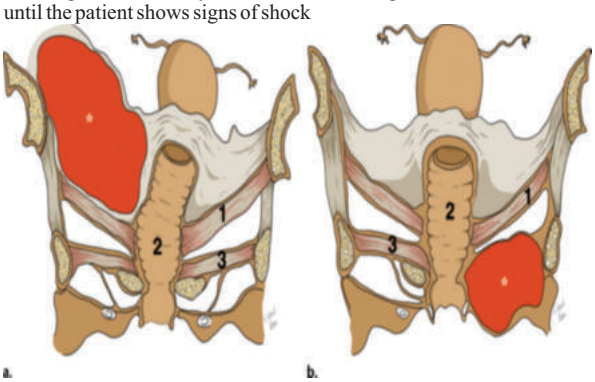


**Figure 1.** Two types of paravaginal hematoma. The levator ani muscle (1) is an important landmark in the classificationof paravaginal hematomas. (a) Drawing of a supralevator hematoma (*) shows that supralevator hematomas can spread upward through the broad ligament to the retroperitoneal space. Thus, they are usually more difficult to diagnose and are less accessible than infralevator hematomas. (b) Drawing of an infralevator hematoma (*) shows that infralevator hematomas lie in the lower portion of the pelvic compartment. 2 = vagina, 3 = urogenital diaphragm.

## CASE PRESENTATION

A 29 year old primigravida with an uneventful antenatal period and mild IUGR was admitted at 38+6weeks. She was induced with a single dose of prostin 3mg. On admission, she was 1-cm dilated and 25% effaced, and the fetal station was −2. She started getting labour pains after 4hours.She progressed to complete dilation and delivered a 2740-g female baby over a right mediolateral episiotomy within 2.5hours after reaching 5cm dilatation .Episiotomy wound was sutured in layers. No active bleeding seen. No other vaginal/cervical tears seen. Estimated blood loss 400ml. The patient reported rectal pain 3 hours after delivery. Single digit examination identified a left vaginal side wall hematoma extending 8 cm in the cranial–caudal dimension. The patient consented to examination under anesthesia and underwent surgery. Examination under anaesthesia showed an intact episiotomy wound. Digital palpation of the expanding mass opened the hematoma. and wound exploration done. No active bleeders identified. Haematoma cavity closed in layers. Vaginal packing was done. Postoperatively she again complained of rectal pain. The uterus was well contracted and shifted towards right side. On examination a left para rectal haematoma was felt towards posterolateral aspect. Urgent CT scan confirmed finding of a large left para rectal haematoma with possibility of small left broad ligament extension. She was managed conservatively with vaginal and rectal packing, analgesics, intravenous antibiotics and 3units of packed red cell transfusion. Follow up ultrasound showed reduction in the size of the haematoma. She was discharged after 10days and followed up on OPD basis until complete resolution of the haematoma was confirmed.

## DISCUSSION

While small paravaginal haematomas are common postpartum, only a few cases of paravaginal haematomas causing severe postpartum haemorrhage have been published.

Commonly, the approach to paravaginal haematomas in the extraperitoneal space has been incision and drainage if the haematoma is accessible vaginally. The failure of incision and drainage in three cases, with the need for subsequent transcatheter arterial embolisation (TAE) described by Heffner et al (2) and Villella et al. [3] and laparotomy in one by Singh et al. [4], highlights the potential difficulties in accessing and achieving haemostasis in this large potential space. Two case reports of successful laparoscopic drainage for postpartum retroperitoneal hematoma have been described(7,8) Conservative management of a large concealed paravaginal haematoma has been described by Stobie et al (5) and Yang et al( 6) .

Treatment of postpartum pelvic haematoma depends on the condition of the patient and the extent of the haematoma. Patients with small haematomas and those with haemodynamic stability can be managed non-operatively.Most of the haematomas resolve without any sequelae. Surgical intervention is required in patients with

haemodynamic instability, significant fall in haemoglobin not responding to blood transfusion and failure of conservative treatment. Surgical drainage of haematoma and haemostasis can be achieved by laparotomy, perineal approach and laparoscopy, depending on the location of the haematoma. In selected cases with stable haemodynamics, transarterial embolisation of the bleeding vessels can be performed to avoid surgery .With few complications, including bleeding at arterial puncture sites and postembolisation syndrome, the main limitation on its use is its availability.

The pressure to intervene in cases where the paravaginal haematoma causes significant pain or anemia must be balanced against the risk of infection and further haemorrhage, particularly if the haematoma has tamponaded itself, whereby decompression may worsen the haemorrhage. It may also present technical challenges in accessing and closing the remaining potential space.

This is demonstrated in a case described by Bacalbasa et al( 9) where preliminary evacuation transvaginally failed and subsequent laparotomy was required for a retrorectal haematoma

## CONCLUSION

Our case demonstrates the success of a conservative approach for even large paravaginal haematomas in patients who can be stabilised with IV fluids and blood products. These paravaginal haematomas are likely to self-tamponade and analgesia with prevention of infection is then the key focus of management.

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