

Traumatic Non Obstetric Vulvar Hematoma: A Case Report

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Abstract: *Haematoma of the vulva may occur following blunt trauma due to its highly vascular structure. We present a case of haematoma of the vulva about 15x12cm caused following fall from chair leading to blunt trauma to the perineum. It was successfully managed by surgical evacuation, ligation of the bleeding sites, and use of antibiotics and analgesics.*

I. Introduction

Injuries of the female genital tract accounts for 0.8% of all gynaecologic admissions due to non obstetric cause so non-obstetric haematoma of the vulva is very rare condition. In the face of impending assault there is reflex adduction of the thighs so the perineum is being a highly protected area. The rich vulvar vascular network may be easily damaged by contusive frontal impacts, which crush the vulvar tissues against the osseous planes¹.

Non obstetric vulval hematomas may arise secondary to blunt trauma sustained during a fall from height, sexual assault, foreign body insertion, and vigorous coitus. Other rare aetiologies may include automobile accidents, goring by a cow, straddle bicycle seat bar accidents, and human bite following cunnilingus¹. Although non obstetrics haematoma are small and pose little threat to the patient, at times it become large enough to cause hemodynamic instability². We report presentation and management of a case of large vulval haematoma following a fall from height.

Case

40 years old multiparous lady presented to gynae emergency at Government Medical College and Hospital, Chandigarh with severe pain in perineum and progressive swelling in vulva for last 4 hours. She had sustained blunt trauma to the perineum when she fell down from the chair on which she was standing to clean the ceiling fan. According to patient she had suffered trauma from metallic armrest of the chair. There was no history of recent coitus, sexual assault or vaginal instrumentation. She had previous four normal vaginal deliveries which were uncomplicated.

There was no history of bleeding disorder in the past. On general examination pallor of moderate degree and tachycardia of 120/min was present. Her blood pressure was normal. Per abdomen examination revealed mild tenderness in lower abdomen. Local examination revealed large tense vulval swelling of 15x12cm with bluish hue involving left labia minora and majora extending to mons pubis and pushing introital opening towards right. Mass was extremely tender on palpation so per vaginal examination was not possible to know the inner extent of haematoma. Catherization without anaesthesia was not possible. Patient was not able to abduct or adduct thigh of left side due to extreme pain. (Fig 1)

The baseline investigations included blood haemoglobin, bleeding and clotting time X ray of pelvis (P-A view) done to rule out any fracture of pelvis. Ultrasound examination revealed uterus and adenexa normal without any collection in pelvis. Bladder was full as patient had not passed urine since the incident and large heteroechoic collection in vaginal region. Her haemoglobin was 8 gm%. Patient was planned for examination under anaesthesia and evacuation of haematoma. In operation theatre, under anaesthesia urethral opening was seen to be normal and catherization done. An incision and evacuation was performed, the incision line being around 10 cm on inner aspect of labia majora.

After evacuation of the clots (amount of clot removed) and separately ligating the individual bleeding points (fig 2), the dead space obliteration was done with interrupted suture 1-0 chromic catgut. Vulval skin was closed with 1-0 chromic catgut, mattress. Throughout the procedure, Foley's catheter was kept in situ to prevent an accidental injury of the urethra. One unit of blood was transfused intraoperatively. Postoperatively round the clock cover of, anti-inflammatory analgesic and broad spectrum antibiotics were given to prevent infection. Patient was discharged on the third postoperative day with an advice to complete the course of the prescribed oral antibiotics and a follow up after 2 weeks. Follow up after 2 weeks revealed healthy stitch line.

Fig 1: 15X12 cm vulval swelling is seen with a superficial bluish skin hue. Also note, a shift in the midline of the introital opening and an encroachment of the left vulval swelling on the region of the right vulva.



Fig 2: Incision on the inner aspect of the vulva showing the depth of the cavity after clot evacuation



II. Discussion

Vulva consist mostly of loose connective tissue, smooth muscle and elastin fibres which is supplied by branches of pudendal artery which is a branch of internal iliac artery. The venous drainage consists of labial veins which are tributaries of the internal pudendal vein. Labial branches of pudendal artery are located in superficial fascia of the anterior and posterior pelvic triangle so injury can result in significant vulvar haematoma. There is reflex adduction of thighs immediately preceding trauma. Its anatomical site and rich vascularity makes it susceptible to haematoma formation following injury. Non-obstetric haematoma of the vulva is a relatively rare condition. Diagnosis is usually not a problem when there is proper co-relation with the history, but sometimes, the vulvar swelling could be for a mistaken for a Bartholin's gland duct abscess³. The vaginal vault, especially the right and posterior fornices are the frequent sites of coital injury for parous women; on the other hand, lower vaginal and introital injuries were caused by first acts of coitus⁴. There is controversy regarding the management of vulvar haematoma. Imaging modality has increased image clarity and allowed defined diagnosis based on imaging findings. Perineal sonography helps in assessment of the extent of haematoma at bed side as in our case. Computed sonography is more specific in diagnosing aneurysms whereas magnetic resonance imaging provide detailed mapping of the lesion and exclude any retroperitoneal involvement. Management of majority of vulvar haematomas is conservative. Most resolve spontaneously when simple measures are taken, like tight vaginal packing. If the haematoma is large enough to cause urologic and neurologic symptoms or is expanding then intervention is required immediately. Increased risk of complications and increased hospitalization was found with patients with haematomas managed conservatively when the product of the longitudinal diameter and the transverse diameter was 15 or greater⁵. In the presence of continuous bleeding or wound expansion / dehiscence following simple incision and drainage, selective angiographic embolization of the pudendal and inferior gluteal arteries was a successful second line treatment performed with minimal complications⁶.

In our case size of haematoma was large leading to intense pain, tachycardia, fall in haematocrit level and urologic symptoms so evacuation was necessary to prevent long term effect like pressure necrosis and infection.

III. Conclusion

Urgent surgical intervention is necessary in cases of large non obstetric vulval haematoma as they can represent a potentially life threatening haemorrhage. Evacuation and hemostasis is often desirable to minimize hospital stay and decrease impact of long term effect.

References

- [1]. Dash S, Verghese J and Nizami DJ. Severe haematoma of the vulva: A report of two cases and a clinical review. Kathmandu University Med J. 2006; 4(2): 228-231.
- [2]. Ernest A & Knapp G. Severe traumatic vulva hematoma in teenage girl. Clinical Case Reports 2015; 3(12): 975–978.
- [3]. Shesser R, Schulman D, Smith J. A nonpuerperal traumatic vulvar hematoma. J Emerg Med. 1986;4(5):397-9.
- [4]. Sau AK, Dhar KK, Dhall GI. Nonobstetric lower genital tract trauma. Aust N Z J Obstet Gynaecol. 1993; 33(4):433-5.
- [5]. Benrubi G, Neuman C, Nuss RC, Thompson RJ. Vulvar and vaginal hematomas: a retrospective study of conservative versus operative management. South Med J 1987; 80:991–4.
- [6]. Villella J, Garry D, Levine G, Glanz S, Figueroa R, Maulik D . Postpartum angiographic embolization for vulvovaginal hematoma. A report of two cases. J Reprod Med. 2001 Jan; 46(1):65-7.