

Case Report

A Rare Case Of Hemoperitoneum Due to Rupture of Vessels Over The Surface of Leiomyoma

Sneha Singh^{1*}, Munikrishna.M², Sheela S.R³

1. Post Graduate, Department of Obstetrics and Gynaecology, Sri Devaraj Urs Medical College, Kolar.
2. Unit head, Department of Obstetrics and Gynaecology, Sri Devaraj Urs Medical College, Kolar.
3. Head of The Department, Department of Obstetrics and Gynaecology, Sri Devaraj Urs Medical College, Kolar.

Abstract

Hemoperitoneum due to rupture of veins on the surface of uterine leiomyoma leading to hypovolemic shock is extremely uncommon. Only 100 cases have been reported in the past and it is a life threatening emergency. Here we report a case of massive intraperitoneal haemorrhage due to rupture of vessels on the surface leiomyoma. Diagnosis was made by ultrasound guided ascitic tap which revealed hemoperitoneum. The patient underwent emergency laparotomy and abdominal hysterectomy. Surgery revealed 3.8L of hemoperitoneum and engorged and tortuous surface veins over the uterine fibroid with active bleeding. Pathology was consistent with intraoperative findings. She required transfusion of numerous blood products perioperatively. Her postoperative course was uncomplicated. Hence differential diagnosis of rupture of surface vessel of leiomyoma as a cause of hemoperitoneum should be considered, when there is no history trauma, ruptured ectopic or other findings.

Keywords – Leiomyoma, Hemoperitoneum, Laparotomy

Introduction

Leiomyoma also known as fibroids are a most common in females of reproductive age group.¹ Small fibroids are often asymptomatic and diagnosed incidentally on ultrasound. When symptomatic, they can cause heavy menstrual bleeding or pressure symptoms. Rupture of a fibroid resulting in hemoperitoneum is not a very common and if at all it occurs, it is following a trauma or torsion of subserous fibroid, red degeneration, torsion of uterus along with the fibroid, and sarcomatous degeneration.^{2,3} Spontaneous rupture however is very rare entity and only few cases have been reported in literature.

Case Report

Thirty five year old multiparous woman presented in emergency department of with acute abdomen since 18 hours prior to admission which was sudden in onset, non-radiating associated with one episode of vomiting. Her last menstrual period was one day prior to the date of admission. Previous menstrual cycles were regular and had no menstrual complaints in the past. Patient had previous three caesarean deliveries and underwent concurrent tubectomy 8 years back. Patient gives history of similar pain abdomen but lesser in inten-

sity for which she did not seek any medical attention. She is a known case of hypertension since 2 years and is on antihypertensives (tab telmisartan 40 mg OD) regularly. There is no significant medical or surgical illness in the past.

On examination patient was conscious, oriented, afebrile with severe pallor with grade 3 shock. Her pulse rate was 110 /minute, regular, low volume and blood pressure was 90/60 mm hg. She had distension of abdomen with guarding and generalized tenderness, no rigidity. Per speculum examination revealed normal findings. Bimanual examination revealed bilateral and anterior fornical tenderness and uterine size couldn't be made out because of gross abdominal distension.

Her urine pregnancy test was negative. Her haematological and biochemical investigations revealed that Haemoglobin was - 6.8 gms%, Total Leucocyte Count-17,880/cumm., platelet count 3,39,000 lac/cumm, Packed cell volume - 19%, INR- 0.94, Ultra-sonography of abdomen and pelvis revealed a bulky uterus (16cmx12cmx10cm). There was gross collection of fluid in peri-hepatic area, perisplenic and Morrisons pouch suggestive of hemoperitoneum. There was a evidence of well defined, heterogeneously hypoechoic lesion measuring 12x11 cm with increase peripheral vascularity. Ascitic tap was done which confirmed hemoperitoneum.

Given the acute nature of the patient's intra-abdominal bleeding and deteriorating hemodynamic status, she was taken for emergency exploratory laparotomy. Upon exploration, approximately 3.8 liters of hemoperitoneum was observed. Intraoperative findings were signifi-

*Corresponding Author

Dr. Sneha Singh

Post Graduate, Department of Obstetrics and Gynecology
Sri Devaraj Urs Medical College, Sri Devaraj Urs Academy of
Higher Education and Research, Tamaka, Kolar
Mobile No : 7772883532

E-mail: snehasingh4149@gmail.com

Conflict of Interest: None

Financial Aid: Nil

cant for anterior wall fibroid of 15x12 cm (Fig 1), which was actively bleeding. There were large dilated, tortuous vessels on the surface of fibroid which were bleeding.

Considering the possible need for hysterectomy, Relatives were once again explained about the abdominal findings and after taking consent for hysterectomy, total hysterectomy was performed. Patient was resuscitated simultaneously with two pint of PRBC as patient had significant blood loss and later two more packed red blood cells were transfused. Since our hospital is tertiary care centre and hysterectomy was performed at around 2 am, frozen section couldn't be done. On postoperative day seven, histopathological report of the specimen was collected. It revealed multiple intramural fibroid, largest measuring 12x10x10cm leiomyoma of uterus with myxomatous changes (Fig 2). Postoperative period was uneventful and patient was discharge on postoperative day ten.

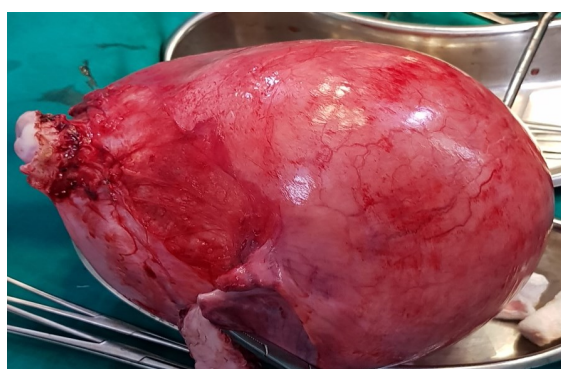


Fig 1: Specimen of uterus with leiomyoma

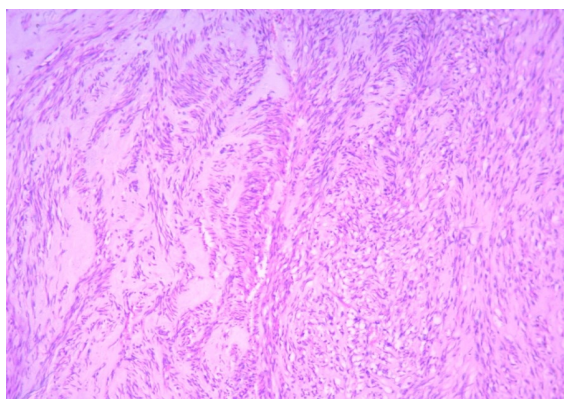


Fig 2: Histopathology section showing myxomatous changes

Discussion:

Most common benign tumor in fertile age group in females is leiomyoma.¹ Hypovolemic shock in females of child bearing age with pain abdomen is considered as ruptured ectopic unless proven otherwise.⁴ However in clinical setting of vaginal bleeding and pain abdomen with negative urine pregnancy test, other common differentials include ruptured corpus luteum, rupture hemorrhagic cyst and ovarian tumors can be considered. One rare possibility is spontaneous rupture of superficial vasculature of leiomyoma

which can present in some instances especially, if the uterine fibroid is very large.⁵⁻⁶ The large size of fibroid stretches the superficial vessel making them more prone to bleed due to thinning and weakening of vessel wall. Degenerative changes (hyaline, cystic, myxoid) are also very common in large fibroid which has outgrown its blood supply.⁷

Histopathology report in our case is also showing myxoid degeneration. In such instances, emergency laparotomy is the protocol. Imaging modality can only detect hemoperitoneum but it cannot identify source of bleeding. In our case also emergency laparotomy followed by hysterectomy was proven to be lifesaving. It is observed that large leiomyoma's can remain asymptomatic for a longer period of time before causing life threatening complications. These cases present to emergency department with features of acute abdomen and hemorrhagic shock. Hence while dealing with such gynecological emergencies possibility of rupture of vessels over fibroid should be kept in mind.

References

1. Wallachand EE, Vlahos NF. Uterinemyomas: an overview of development, clinical features. *Obstet Gynecol* 2004; 104:393-406.
2. Sule AZ. Traumatic rupture of uterine fibroid: an uncommon cause of post traumatic haemoperitoneum. *West Afr J Med* 2000; 19:158-93.
3. Dasari P, Maurya D. Hemoperitoneum associated with fibroid uterus. *J Obstet Gynecol India* 2005; 55:553-554.
4. Nithiya, Hemoperitoneum due to spontaneous subserosal venous rupture overlying a uterine leiomyoma, *University J Surg Surgical Specialties* 2016;2. (ISSN 2455-2860).
5. Chen CH, Lin JY, Tzeng CR, Chiu LH, Liu WM. Hemoperitoneum secondary to rupture of a superficial uterine artery overlying a subserous myoma with no predisposing factors in a young woman. *Taiwan J Obstet Gynecol* 2012;52:133.
6. Danikas D, Theodorou SJ, Kotrotsios J, Sills C, Cordero PE. Hemoperitoneum from spontaneous bleeding of a uterine leiomyoma: a case report. *Am Surg* 1999;65:1180-2.
7. Murase E, Siegelman ES, Outwater EK, Perez-Jaffe LA, Tureck RW. Uterine leiomyomas: histopathologic features, MR imaging findings, differential diagnosis, and treatment. *Radiographics* 1999;19:1179-97.
8. Luesley DM, Baker PN. "Obstetrics and Gynaecology: an evidence-based text for MRCOG". 2nd edn, London CRC Press; 2010. p.134-139.