

Case Report

Massive hemoperitoneum due to rupture of surface veins of a uterine leiomyoma

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Abstract

Rupture of veins on the surface of uterine leiomyoma is an extremely uncommon gynaecological cause of hemoperitoneum. It is a life threatening emergency. We report a case of massive intraperitoneal hemorrhage due to rupture of vessels on the surface of subserous leiomyoma. The patient underwent diagnostic laparoscopy followed by laparotomy and hysterectomy. She received 5 units of fresh blood transfusion and had smooth postoperative period. A differential diagnosis of rupture of surface vessel of leiomyoma should be considered, while dealing with a case of hemoperitoneum with pelvic mass.

Keywords: Hemoperitoneum, Leiomyoma, Gynaecological emergency

1. Introduction

Uterine leiomyoma is a frequently seen benign tumour in women of reproductive age group. Bleeding from the surface of uterine leiomyoma is a rare cause of hemoperitoneum.¹ In most cases, bleeding is a result of trauma or torsion. Spontaneous rupture of a superficial vein of fibroid is extremely rare.² It is a life threatening emergency. Fewer than 100 cases have been reported.³

2. Case Report

Forty three year old multiparous woman presented in emergency department with pain in abdomen, giddiness, palpitations, sweating and one episode of vomiting. She had started menses one day prior to the date of admission. Previous menstrual cycles were regular and had no menstrual complaints in the past. She had two full term normal deliveries in the past and had not undergone sterilization operation. She had complaints of pain in abdomen off and on since six months, for which no gynaecological consultation was done. She was a known case of hypothyroidism and was taking thyroxine supplementation regularly. There was no other medical or surgical illness in the past.

Patient was conscious, oriented, afebrile and was apprehensive about her health status. She had severe pallor. Her pulse rate was 100 /minute, regular, low volume. Her blood pressure was 90/60 mm hg. There was no icterus or thyroid enlargement. Her body mass index was 33. She had distension of abdomen and guarding. Per speculum examination revealed normal findings. Per vaginal examination revealed normal sized mobile uterus. There was no palpable adnexal pathology. Uterine movements were tender.

Her haematological and biochemical investigations revealed that her Haemoglobin was - 6.1 gms%, Total Leucocyte Count- 12880/cumm., Differential Leucocyte Count showed - metaband - 4%, neutrophils- 79%, lymphocytes- 12%, monocytes- 5%, eosinophils- 0% basophils- 0%, platelet count 2,39,000 lac /cumm, Packed cell volume - 28%, S. Uric acid 7.3mg%, S. Bilirubin total -1.0mg%, Conjugated- 0.30mg%, Blood Urea- 20.3 mg% mg%, S, Creatinine 1.1mg%, S.Na 142M.eq/L, S.K 3.6 meq/L, S. LDH -528 IU/L, Serum amylase -59 IU/L, Prothrombin time- test 12.4 sec. Control -13.1 sec., APTT-test 28.2 sec. Control -31.8sec, INR- 0.94, Blood group and Rh type-O Positive, Bleeding time 1 min 30 sec, Clotting time -5 mins. Blood sugar-145mg/dl. Ultra-sonography of abdomen and pelvis revealed a bulky uterus (10cmx5cmx5cm). There was gross collection of fluid in peri-hepatic area, Morissons pouch and paracolic gutter suggestive of hemoperitoneum.

There was a mass in the left adnexa adjoining the uterus showing normal vascularity. There was another mass above this mass having increased surface vascularity suggestive of ovarian mass with torsion or wandering fibroid with torsion with hemo-peritoneum.

Patient and relatives were counseled about the need for diagnostic laparoscopy and exploratory laparotomy if required. High risk consent was obtained from the relatives. Diagnostic laparoscopy revealed gross collection of blood clots occupying whole of pelvic cavity and covering the uterus and adnexa. (Fig.1) There was a round tumour seen on the top of the collected blood clots, whose surface showed actively bleeding vessel. Pelvic organs were explored through scope after dislodging blood clots. A large round subserous fibroid of uterus (10 cm x10cm size) attached to another tubular subserous fibroid arising from left side of fundus of uterus was visualized. (Fig. 2) Considering the possible need of myomectomy /hysterectomy, decision of exploratory laparotomy was taken. Relatives were once again explained about the abdominal findings. Consent for hysterectomy was obtained.

Abdomen was opened by midline incision. The peritoneal cavity was full of blood and blood clots. After removal of blood clots from pelvic region, uterus and fibroid could be visualized clearly. (Fig.3) The surface of the distal round fibroid was looking unhealthy in comparison with tubular proximal part of the fibroid. There were large dilated, tortuous vessels on the surface, giving suspicion of sarcomatous change in fibroid. (Fig 4) .In view of these findings, decision of total hysterectomy was taken. Patient was hemo-dynamically stable during surgery. She was transfused with three units of fresh blood. Patient had smooth post operative period. Another two units of blood were transfused on first post operative day. She was kept in hospital for ten days. Histo-pathological report of the specimen showed leiomyoma of uterus. There was no evidence of sarcomatous change in fibroid.

Fig 1-Laparoscopic view of hemoperitoneum



Fig 2-Round Subserous fibroid sitting on tubular fundal fibroid



Fig 3-Specimen of Uterus with fibroid



Fig 4-Fibroid with tortuous veins on the



3. Discussion

Fibroid of the uterus is the commonest benign tumour seen in women of reproductive age.¹ Subserous variety is least common and least symptomatic type of fibroid. Subserous tumours are known for some rare complications like torsion of pedicle and detachment from parent uterus forming wandering fibroid.² Rupture of surface vessel of fibroid causing severe intraperitoneal bleeding is extremely rare.³ Very few cases of such condition are reported in the literature. Many senior surgeons with long experience have never seen such a case. Factors which have been reported to be associated with spontaneous rupture of superficial surface vessels of fibroid are abdominal trauma, sudden exertion, straining and erosion of vessel by friction or pressure of the tumour against sacral promontory. Increased dilatation of the surface veins during menstruation, parturition, inflammation and torsion of the pedicle are possible factors for rupture of vessel on the tumour surface.² Congestion of a vein overlying a leiomyoma, irrespective of the patient's age or parity or size of the leiomyoma, is a risk factor for vessel rupture.⁴ The differential diagnosis of this condition, when associated with severe intra abdominal bleeding includes ruptured ectopic pregnancy, rupture of corpus luteal cyst of ovary and torsion of adnexal tumours. Acute abdominal pain, tenderness, signs of hemorrhage together with presence of uterine fibroid should suggest the diagnosis of intra abdominal hemorrhage from ruptured surface vessels of fibroid.⁵ In this case; patient was unaware about the presence of fibroid in her uterus. On detailed probing about her symptoms, she narrated that she used to have some pain in abdomen intermittently, which used to subside after rest. She never approached any gynaecologist for her complaints. She had not undergone abdominal or pelvic ultrasound in last ten years. She had performed some unusual physical activity requiring multiple time bending at waist, immediately before onset of her symptoms. In addition, she had her first day of menses on the day she developed symptoms. These factors might have predisposed the rupture of surface veins of the fibroid. These cases usually present to emergency department with features of acute abdomen with hemorrhagic shock. Emergency surgical intervention is advocated to confirm the diagnosis and arrest hemorrhage.⁶⁻⁹

Acknowledgement

The authors express their deep sense of gratitude to the Department of Anaesthesia and Radiology, Management of the Pravara Medical Trust and the Principal, Rural Medical College, Loni, Maharashtra, India.

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