Abstract:
The most frequent cause of hemoperitoneum in women is ruptured ectopic pregnancy. An uncommon cause of hemoperitoneum is rupture of uterine leiomyoma vessels. We report one case of massive intraperitoneal hemorrhage and hypovolemic shock due to rupture of uterine leiomyoma vessels. The patient was treated with total abdominal hysterectomy and the postoperative course was uneventful. This case suggest that massive intraperitoneal hemorrhage associated with uterine leiomyoma should be considered in women with hypovolemic shock and pelvic mass.

Keyword: hemoperitoneum, fibroid uterus

INTRODUCTION:
Uterine leiomyoma is the most common tumor in women of reproductive age, but rarely does it lead to fatal hemoperitoneum. Bleeding from uterine leiomyoma is a rare cause of hemoperitoneum. In most cases bleeding is a result of trauma or torsion. Spontaneous rupture of a superficial vein is extremely rare. Fewer than 100 cases have been reported.

Case report:
A 45 year old multiparous woman was referred as a case of malignant ovarian tumor with ascites. She was in a state of profound shock with unrecordable pulse and blood pressure (BP). After resuscitation, her pulse rose to 120/minute and BP to 90/50 mm Hg. There was a history of lower abdominal pain for two days and vomiting for the past 17 hours and difficulty in breathing more on supine position. Her menstrual cycles were regular and there was no history of amenorrhea, menorrhagia or dysmenorrhea. On general examination, she was severely anaemic, tachypnic and no significant
lymphadenopathy. Her respiratory and cardiovascular systems were normal except for tachycardia and tachypnoea. Abdominal examination revealed distension of lower abdomen with tenderness and guarding. A firm tender mass of 16 weeks size with ill defined margins was felt arising from the pelvis. On speculum examination, cervix and vagina were healthy. Vaginal examination revealed that the cervical movement was not tender and uterus enlarged to 16 weeks size and left adnexal mass of 9 × 9 cm felt.

A provisional diagnosis of ?twisted ovarian tumor with ascites, ?ruptured chocolate cyst of ovary was made. She was closely monitored. She received 3L of crystalloids and 500 mL of blood. Her urine pregnancy test was negative and a trans-abdominal sonography showed an 53 × 27 mm hypoechoic mass in the endometrium, 86 × 67 mm mixed echogenic mass in the left adnexa & free fluid abdomen(fig 1). The right ovary was normal. There was free fluid in the abdomen, which on aspiration showed frank blood. Laparotomy was undertaken. It revealed 1. 2L of hemoperitoneum and 16 weeks size uterus, 9 × 8 cm sub serous fibroid in the left cornual end(fig. 2) with active bleeding.

from sub serosal vein over lying sub serous fibroid (fig3 & 4). Both ovary and both the tubes were normal. Total abdominal hysterectomy was done. fig .1
Two units of blood and 500 mL of crystalloids were transfused intra-operative period. There were no postoperative complications and the patient was discharged on the 8th postoperative day after suture removal. The histopathological examination of the mass showed it to be a leiomyoma of the uterus.

Discussion:
The common causes of acute abdomen in cases of fibroid uterus include torsion of subserous fibroid, red degeneration, torsion of uterus along with the fibroid, and sarcomatous degeneration. Sudden intraperitoneal hemorrhage in a case of fibroid uterus can also present as acute abdomen. This usually results from rupture of a dilated vein beneath the serosal surface of a subserous leiomyoma. Rupture of dilated subserous vein is mainly due to trauma and torsion of myoma, rarely due to spontaneous rupture.

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 rupture. Rupture of a subserosal vein overlying a uterine leiomyoma may cause sudden and unexpected death. 3 out of 53 women died when surgical treatment for this complication was not attempted during pregnancy. A preoperative diagnosis of hemoperitoneum associated with fibroid is usually not made without prior knowledge of the tumor. The correct diagnosis was possible in 4 out of 53 cases reviewed. Most often, acute abdominal pain associated with shock necessitates laparotomy. As the commonest cause of increase in size of the fibroid is pregnancy, one may encounter this complication frequently during pregnancy.

Avulsion of a fibroid during road traffic accident is reported in two cases. The cause of avulsion was thought to be a contrecoup type of injury, the uterus and the fibroid moving at relatively different speeds producing a shearing stress in the pedicle rather than a direct injury. The shock in these cases is attributed to the hemoperitoneum resulting from avulsion of the subserous fibroid.

The severe tenderness and rigidity of the abdomen at the time of hemorrhage often preclude definite detection of a fibroid on physical examination. When large asymptomatic leiomyomas are diagnosed a recommendation for removal should be made even in young women as they are bound to grow till menopause with attendant risk of complications. Large subserous fibroids can remain asymptomatic for a long time before causing life threatening complications like rupture of superficial vein, torsion, and avulsion. Hence they should be treated in the asymptomatic state itself.

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