

Massive Hemoperitoneum from a Detached Degenerative Pedunculated Uterine Fibroid Following Blunt Abdominal Trauma: A Case Report.

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- **Introduction:**
 - Uterine fibroids, or leiomyomas, are common benign tumors in women of reproductive age.
 - Although typically asymptomatic or presenting with menstrual irregularities, fibroids can occasionally lead to acute complications such as torsion, infarction, or rupture (Gupta et al., 2009).
 - Spontaneous hemoperitoneum secondary to fibroid rupture is exceedingly rare, particularly following blunt abdominal trauma (Choi et al., 2021).
 - We present a case of massive hemoperitoneum due to a partially detached degenerative pedunculated fibroid precipitated by deep abdominal massage, highlighting the diagnostic and therapeutic challenges encountered.

Case Presentation: 45-year-old woman with a history of **uterine fibroids** and a **small hepatic hemangioma**: Presented to the **emergency department** with:

- Sudden-onset **severe lower abdominal pain** during a **deep body massage** and pain radiating to the **right shoulder and multiple episodes of vomiting**.

Progressive clinical deterioration within hours:

- **Hypotension** (BP: 80/50 mmHg) **Tachypnea** (RR: 24 breaths/min)
- **Cold extremities** — suggestive of **hemorrhagic shock**.
- **FAST scan** showed **free fluid** in Morrison’s pouch and pelvis → suspected **intra-abdominal hemorrhage**.
- **Hemoglobin dropped** from **12.1 g/dL** to **7.2 g/dL**.
- **CECT** (Contrast-enhanced computed tomography)**scan** revealed:
 - **Massive intra-abdominal hemorrhage** and blood clots around a **pedunculated subserosal fibroid** with wall discontinuity and with **no active contrast extravasation**.
 - **Differential diagnoses:**

Ruptured corpus luteum cyst, Fibroid rupture, Hemorrhagic neoplasm.

- Initiated **IV fluid resuscitation** and **PRBC transfusions**.

Surgical Management :

Patient underwent **emergency diagnostic laparoscopy** after stabilization.

Found **massive hemoperitoneum** with ongoing bleeding from the **base of a pedunculated sub serosal fibroid**. Proceeded to **laparotomy** due to the extent of hemorrhage :

- Noted **Partially sheared peduncle** with **active bleeding**.
- Performed **myomectomy**.
- Conducted **thorough peritoneal lavage**.
- **Uterus appeared otherwise unremarkable**.

Histopathology: Benign leiomyoma with **degenerative changes**, no malignancy.

Post-op course:

- Uneventful recovery. Hemoglobin stabilized and was discharged on **post-op day 5**

- **Discussion:** Spontaneous hemoperitoneum due to fibroid rupture is rare and is often misdiagnosed as other causes of acute abdomen, such as ruptured ovarian cysts or ectopic pregnancy (Gupta et al 2009)
- The proposed mechanism in this case was mechanical torsion or shearing of the fibroid peduncle due to external abdominal pressure during the massage, leading to vascular disruption and massive hemorrhage.
- Timely diagnosis relies on clinical suspicion, imaging studies, and interdisciplinary involvement (Ali Antoine et al., 2024)
- Although conservative management with close monitoring may be an option in hemodynamically stable patients, surgical intervention remains the definitive treatment when there is ongoing bleeding or hemodynamic instability. (Choi et al 2021)
- Myomectomy is often sufficient for hemorrhage control, while hysterectomy may be required in cases of refractory bleeding or extensive uterine involvement .

Conclusion: This case highlights a rare but serious complication of uterine fibroids. In women with known fibroids who present with acute abdomen following blunt abdominal trauma, fibroid rupture should be considered in the differential diagnosis. Prompt recognition and timely surgical management are critical to preventing adverse outcomes.

Declarations:

- **Ethical Approval:** Not applicable.
- **Consent:** Verbal informed consent was obtained from the patient for publication of this case report.
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