**Abstract**

**Title : Ovarian Vein Hemorrhage Following Trauma: A Case Report**

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**Introduction**

Ovarian vein hemorrhage is a rare yet potentially life-threatening consequence of abdominal trauma. This case report highlights the challenges encountered by the emergency team in diagnosing and managing such case.

**Case presentation:**

A 63-year-old woman presented to Emergency Department (ED) following a collision with a motorbike while walking along a roadside. She complained of lower abdominal pain, dizziness, and expressed desire to rest. She was nauseated and vomited multiple times. She was hypotensive and tachycardic. Physical examination revealed a soft abdomen with multiple bruises on bilateral hip region. Initial assessment, including Focused Assessment Sonography (FAST), did not detect any free fluid. Due to suspicion of pelvic instability, she was promptly placed on a pelvic binder. Pelvic x-ray revealed bilateral superior and inferior pubic rami fractures. Computed Tomography (CT) of the abdomen and pelvis revealed tortuous and dilated bilateral ovarian vein with extravasation indicating active hemorrhage and resulting retroperitoneal hematoma and hemoperitoneum.

**Discussion**

Ovarian vein hemorrhage following trauma represents a rare but potentially life-threatening condition that warrants careful consideration due to its unique pathophysiology and diagnostic challenges. While abdominal trauma typically involves more commonly recognized sources of bleeding such as solid organ injury, ovarian vein should be included in the differential diagnosis, particularly in cases of unexplained hypotension or ongoing hemorrhage. Blunt abdominal trauma or pelvic fractures can directly injure the ovarian vein or indirectly cause stretching or tearing of the vessels due to sudden changes in intraabdominal pressure.

In our case, initial assessment findings, including negative FAST examination and bilateral pubic rami fractures on pelvic x-ray, did not raise suspicion for ovarian vein hemorrhage. However, persistent hypotension prompted further evaluation with CT imaging, revealing ovarian vein injury. This highlights the importance of high index of suspicion in cases of unexplained hemodynamic instability following trauma.

**Conclusion**

Ovarian vein hemorrhage following trauma is rare but potentially life-threatening condition that requires prompt recognition and intervention. High index of suspicion in case of unexplained hypotension or ongoing hemorrhage, particularly when standard imaging modalities yield inconclusive results is important. Early detection and appropriate resuscitation are paramount in preventing adverse outcomes and ensuring favorable patient outcome.

Keywords: Ovarian vein hemorrhage, trauma