An Unusual Presentation of Subcutaneous Inguinal Hematoma Mimicking Ovarian Torsion: A Case Report and Review of Literature.

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Background & Significance

- Ovarian torsions occurs when an ovary rotates around one of the supporting ligaments, often the infundibulopelvic (IP) ligament. This rotation can cause the blood flow to the ovary to be hindered, and this decrease in perfusion can often present as adnexal pain, nausea, and vomiting (Guile, S & Mathai, J, 2021). A significant risk factor for developing an ovarian torsion is the presence of an ovarian mass, such as a cyst (Bridwell, R. et. al., 2022). This diagnosis is a medical emergency and symptoms typically resolve with prompt surgical intervention (Bridwell, R. et. al., 2022). Hematomas occurring within or around the inguinal region have been reported to be primarily from procedures such as ablations or inguinal hernia repairs (Dalsgaard, A. et. al., 2014) (Zeb, M. et. al. 2016).

- This case examines a 36-year-old female presenting with left sided pelvic pain subsequently evaluated to be associated with what was believed to be left ovarian torsion and a subcutaneous inguinal hematoma. Intraoperative findings revealing an aberrant vessel which originated at the IP ligament, coursing through the inguinal canal, and appeared to terminate at the level of the inguinal hematoma.

Case Presentation

A 36-year-old G5P2032 presented to the emergency department with complaints of colicky left lower pelvic pain following intercourse 2 days prior. The patient reportedly had similar complaints on and off for several years. However, during this episode the pain was severe requiring narcotic administration. She also had accompanying nausea with the pain.

Patient is status post hysterectomy with bilateral salpingectomy several years prior. She disclosed a known history of a left ovarian cyst which was not resected at this point. Based on her evaluation which included a detailed history, physical and pelvic exam, as well as imaging we suspected she had ovarian torsion. Her unusual presenting complaint was that she also had a large left sided inguinal hematoma that presented at the onset of the pain. The patient admitted to appearance of similar inguinal discoloration in the past following sexual intercourse that would resolve spontaneously.

Physical examination revealed a large 11cm superficial hematoma over the left inguinal fold that extended proximally into the left mons pubis. The area was tender to palpation. Examination also revealed tenderness to palpation over the LLQ. Vaginal cuff was noted to be intact without abnormal discharge or bleeding. Ovaries were not palpable on bimanual examination

Patient subsequently underwent diagnostic laparoscopy with left oophorectomy and ligation of abberant vasculature. Her post-operative examination revealed resolution in pain and inguinal hematoma.

References

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Imaging

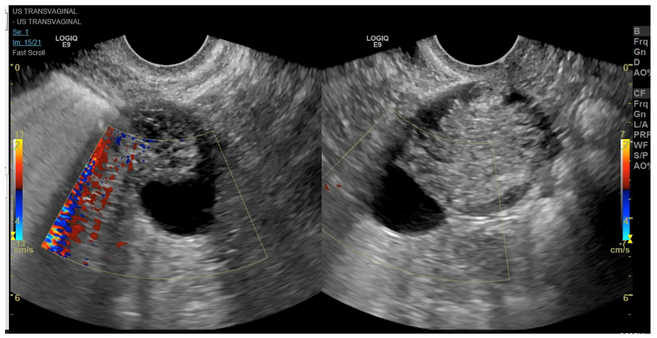

Image 1: Transvaginal ultrasonography of left ovary with ovarian cyst

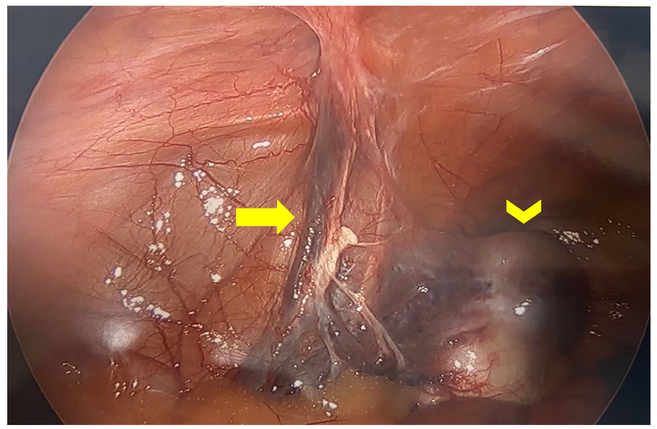

Image 2: Laparoscopic image of left IP ligament, left ovary with left ovarian cyst (arrowhead), left pelvic side wall aberrant vasculature (arrow).

Image 3: CT Pelvis: The urinary bladder, rectum, and perirectal soft tissues are unremarkable. Small left adnexal cysts are likely physiologic. No significant free pelvic fluid or adenopathy seen. No acute process within the pelvis.

Discussion

Ovarian torsion is a common gynecologic presentation with an occurrence rate of 5.9 per 100,000 women of all ages. Typical symptomatology includes acute onset pelvic or abdominal pain, with or without accompanying nausea and vomiting as was seen in our patient. The most common etiology for ovarian torsion includes the presence of an ovarian mass both benign or malignant. Other common features that increase the risk for torsion include long IP or ovarian ligaments, excessive laxity of pelvic ligaments, or small uterine size. Outcomes of ovarian torsion range from spontaneous resolution to necrosis and loss of function of the affected ovary. Evaluation of suspected ovarian torsion should include relevant history such as onset during strenuous activity, colicky pelvic pain, and associated nausea or vomiting.

Physical exam findings may include pelvic tenderness to palpation and on bimanual exam. In terms of imaging, transabdominal ultrasound has a sensitivity and specificity of 92% and 96%, respectively. The use of doppler arterial flow is controversial as the presence of flow does not rule out ovarian torsion, while the absence of flow does not indicate necrotic or non-salvageable ovarian tissue. Normal doppler flow has been reported in up to 60% of cases with intraoperatively proven torsion. Treatment options for torsion should be directed at diagnosis and management with diagnostic laparoscopy as the gold standard. Decision for oophorectomy should be made based on tissue viability as well as patients' menopausal status and desire for future fertility.

Inguinal hematoma in the setting of suspected ovarian torsion is an unusual presentation with little to no reported incidence. It is an importance case to discuss due to potential underlying etiologies of inguinal hematoma that were not present in this patient. The information surrounding inguinal hematomas primarily focuses on the presence of inguinal hernias often status post repair, hematoma formation after interventional radiology procedures, and male presentations with little focus on clinical presentations in anatomically female patients. Hematomas should be observed and evaluated for expansion and impingement on surrounding structures.

Other reports of aberrant pelvic vasculature typically involve the obturator artery. One case report describes a right sided aberrant ovarian artery arising at the point of the IP ligament in similar fashion to that seen with our patient (Kim WK, 2013). In that report, the aberrant vessel terminated within the uterine tissue and was deemed to be a major contributor in the setting of a postpartum hemorrhage. In contrast, the vessel seen in this patient coursed externally to the pelvis and had no blood supply of major significance. Therefore, documentation of uncommon anatomic variants is important for successful treatment and diagnosis in the setting of certain clinical presentations.

Conclusion

This case report examines an unusual presentation of pelvic pain mimicking ovarian torsion with accompanying ipsilateral subcutaneous inguinal hematoma secondary to aberrant pelvic vasculature. According to our recent searches, there is no available clinical information regarding this combination presentation.

The goal of this report is to provide insight into diagnosis and treatment for patients with this atypical presentation. It is unclear to the authors whether intermittent torsion led to vascular thrombosis or vice versa. Key points in our report include an outline for initial evaluation and management as well as our primary reported outcome from the interventions provided above. While imaging offered little information regarding etiology of the subcutaneous hematoma, it should be considered in all women presenting with acute pelvic pain symptoms. Diagnostic laparoscopy proved to be definitive in this patient in terms of diagnosis and management but may not provide full utility in every woman with this presentation, therefore the authors recommend a comprehensive evaluation.

This case provides an alternative differential diagnosis for women presenting with pelvic pain and inguinal hematomas. This case also reports an intraoperative strategy that may be suitable for some patients after anatomical survey is completed. Our findings revealed no consequence to the ligation of such aforementioned pelvic vasculature. However, this case does not serve as a definitive guideline for intraoperative management and discretion of the surgeon should be used when assessing anatomic variants such as the one reported in this case.

This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.