

Idiopathic Ovarian Vein Thrombosis:

Early recognition to prevent unnecessary surgical intervention

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CASE PRESENTATION

40-year-old multiparous woman presented with a 6-day history of severe left lower abdominal pain, nausea and fever. The pain was sharp, sudden in onset, continuous, and worsened by sitting.

She denied genitourinary symptoms, recent travel, prolonged immobility, oral contraception use or personal/family history of thrombosis.

Examination:

Vital signs were stable.

She had localised left iliac fossa tenderness with rebound tenderness.

Investigations:

Bloods were unremarkable apart from raised C-reactive protein (236 mg/L)

Contrast-enhanced computed tomography (CT) showed a bulky left ovary and left ovarian vein with filling defects raising suspicion for left ovarian vein thrombosis.

Management

Diagnostic laparoscopy was performed, to rule out any ovarian cyst accident, which revealed a thrombosed left ovarian ligament without torsion and an edematous lateral left fallopian tube, leading to partial salpingectomy.

Histopathology confirmed acute inflammation along with signs of infection.

Postoperatively, the patient was treated with antibiotics and therapeutic low molecular weight heparin (LMWH). After consultation with haematology, she was started on a 3-month course of apixaban, after which the patient noticed improvement in symptoms. No follow-up imaging was needed to ensure resolution after discussion with radiologist.

LITERATURE REVIEW

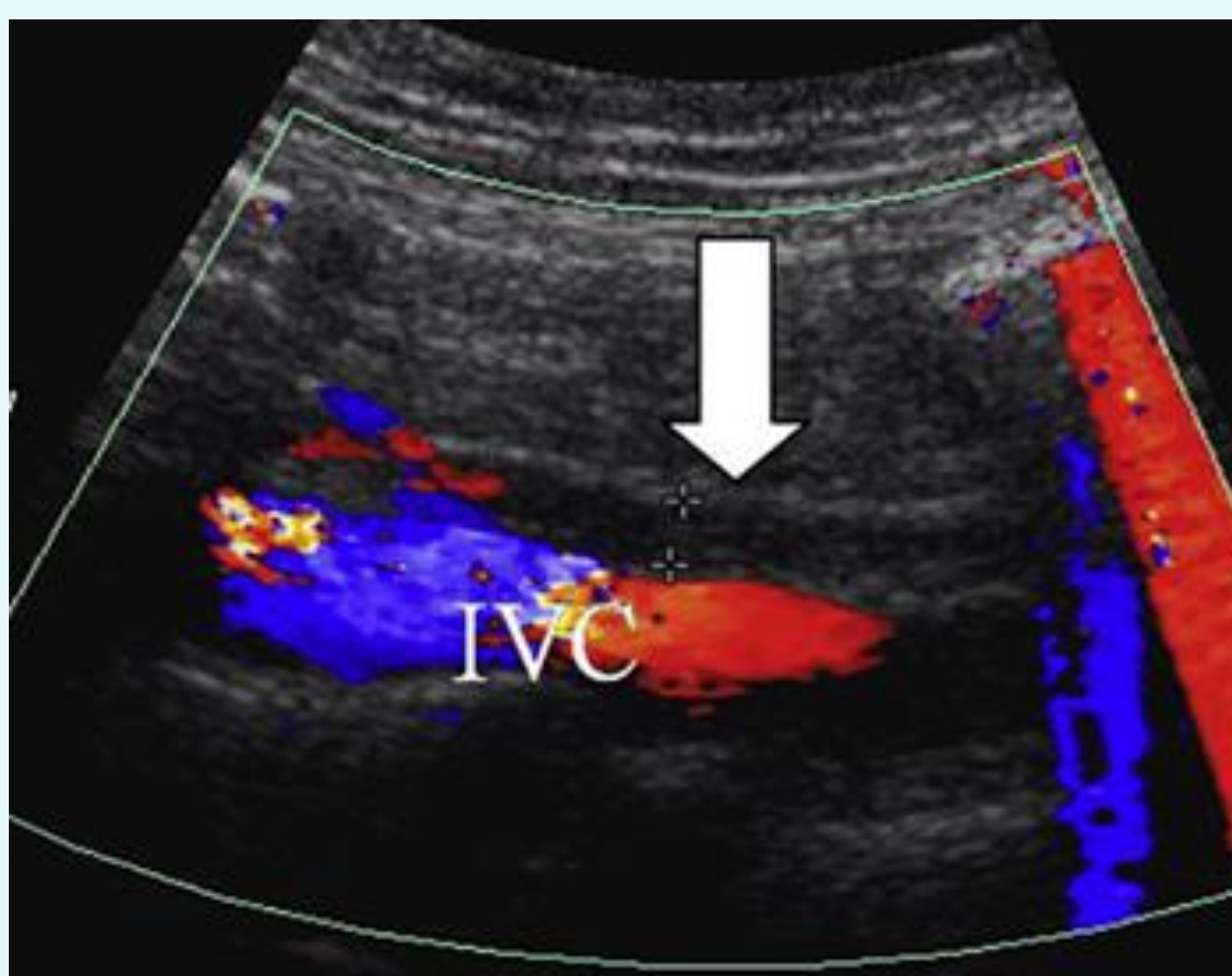
- OVT is a relatively rare thromboembolic event
- Incidence** of 0.18 %, commonly occurs in right ovarian vein, 70-90%.[1]
- Risk factors:** pregnancy and puerperium, malignancy, oral contraceptives, recent surgery and immobilization, and pelvic infections. However, 4 to 16% idiopathic. [2]
- Abdominal pain** is the most common presenting symptom and may mimic other commonly presenting condition like ovarian torsion and ovarian cyst accidents.[3]
- Complications** associated with OVT are rare and include septic thrombophlebitis, thrombus extension into the IVC and pulmonary embolism.[4]

Investigations [5,7]

Ultrasound Doppler is usually the initial imaging modality: lack of color flow on doppler, vein dilation, partial compressibility or non compressibility.

CT has a sensitivity and specificity up to 100 and 99%- filling defects in ovarian vein along with dilation or tortuosity- not suitable in pregnancy

MRI sensitivity and specificity up to 100%. However, it is expensive and usually not readily available. The typical findings on MRI are lack of blood flow in ovarian vein, vein enlargement and vascular wall thickening.



Treatment: [6]

Anticoagulant remains the cornerstone of treatment. Broad spectrum antibiotics are indicated in case concomitant infection is suspected. LMWH or unfractionated heparin is initiated in the acute phase soon after diagnosis and subsequently switched to oral anticoagulants.

CASE ANALYSIS

OVT should be considered as a differential diagnosis in any lady presenting with nonspecific abdominal pain and fever.

A high degree of suspicion and a low threshold for investigation will help in reduce morbidity associated with OVT .

REFERENCES

- N. Labropoulos et al. The natural history and treatment outcomes of symptomatic ovarian vein thrombosis J. Vasc. Surg. Venous Lymphat. Disord., 3 (1) (2015), pp. 42-47
- Kodali N, Veytsman I, Martyr S, Lu K. Diagnosis and management of ovarian vein thrombosis in a healthy individual: a case report and a literature review. J Thromb Haemost. 2017 Feb;15(2):242-245.
- Li W, Cao S, Zhu R, Chen X. Idiopathic ovarian vein thrombosis causing pulmonary embolism: case report and literature review. J Int Med Res. 2021 Jun;49(6):3000605211010649.
- Harris K, Mehta S, Iskhakov E, et al. Ovarian vein thrombosis in the nonpregnant woman: an overlooked diagnosis. Ther Adv Hematol 2012; 3: 325–328.
- Riva, N., & Calleja-Agius, J. (2020). Ovarian Vein Thrombosis: A Narrative Review. Hämostaseologie, 41, 257 - 266.
- Alalqam MM, Al Abbas R, Abualsaud AS, AlQattan AS, Almabyouq F. The challenges of diagnosing idiopathic ovarian vein thrombosis: Case report. Int J Surg Case Rep. 2019;60:63-65.
- Virmani V, Kaza R, Sadaf A, Fasih N, Fraser-Hill M. Ultrasound, computed tomography, and magnetic resonance imaging of ovarian vein thrombosis in obstetrical and nonobstetrical patients. Can Assoc Radiol J. 2012 May;63(2):109-118. doi: 10.1016/j.carj.2010.08.002. Epub 2010 Sep 27. PMID: 20870377