ACUTE OR CHRONIC OVARIAN VEIN THROMBOSIS: WHAT TO DO?

Mikel Sadek, MD, FACS

Disclosures

- I do not have any financial relationships to disclose.

<table>
<thead>
<tr>
<th>Etiology</th>
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<tr>
<td>• Obstetric (1 in 2000 deliveries)</td>
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<tr>
<td>– Post-partum sepsis</td>
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<tr>
<td>– Group B strep</td>
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<tr>
<td>– Ruptured ectopic</td>
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<td>– Hydatidiform mole</td>
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<tr>
<td>• Non-obstetric</td>
</tr>
<tr>
<td>– Pelvic surgery</td>
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<tr>
<td>– Malignancy</td>
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<tr>
<td>– PID</td>
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<tr>
<td>– Appendicitis, diverticulitis</td>
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<td>– Inflammatory bowel disease</td>
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<tr>
<th>Pathophysiology</th>
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<tr>
<td>• Pregnancy</td>
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<tr>
<td>– 3x ovarian vein diameter</td>
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<td>– 60-fold ↑ ovarian blood volume</td>
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<tr>
<td>– Ovarian vein incompetence</td>
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<tr>
<td>• Post-partum Virchow’s Triad</td>
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<tr>
<td>– Stasis / volume contraction</td>
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<td>– Endothelial injury from delivery</td>
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<td>– Pregnancy hypercoagulability</td>
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<th>Clinical Features</th>
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<td>• Right-sided (70-90%), B/L (11%), Left (2-3%)</td>
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<td>– Dextroposition of gravid uterus</td>
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<tr>
<td>– Left ovarian vein → retrograde</td>
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<tr>
<td>– Right ovarian vein → antegrade → stasis → POVT</td>
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<tr>
<td>• POVT</td>
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<tr>
<td>– First 10 days post-partum</td>
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<td>– Fever (80%), chills, RLQ pain (55%), LLQ pain (3.6%)</td>
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<td>– Sausage shaped tender mass</td>
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<td>– Asymptomatic (malignancy related)</td>
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<tr>
<td>• DDx</td>
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<tr>
<td>– All other causes of acute abdomen (appendicitis, adnexal torsion, TOA, pyelonephritis...)</td>
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<td>– Imaging is critical</td>
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<td>• Complications</td>
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<tr>
<td>– Septic emboli</td>
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<tr>
<td>– IVC / renal vein thrombosis</td>
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<td>– PE 13%-33%</td>
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<td>– Ureteral obstruction</td>
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<td>– Chronic pelvic pain</td>
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<th>Notes</th>
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<tr>
<td>2. Dunnihoo DR, Gallaspy JW, Wise RB, Otterson WN. Postpartum ovarian vein thrombophlebitis: a</td>
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Diagnosis

- High index of suspicion
- Diagnostic laparoscopy
  - Determine source of abdominal pain
- Duplex ultrasound
  - Hypoechoic, heterogeneous, tube-shaped formation with inner echos
  - Sensitivity 52%


CT scan
- Rounded hypodense mass
- Sausage-shaped
- Paracolic gutter

MRI
- Near 100% sensitivity
- Acute vs. subacute

Treatment for Acute

- Medical
  - Anticoagulation (6 months)
  - Antibiotics (for sepsis)
    - Amoxicillin/clavulanic acid
    - Metronidazole / gentamicin

- Interventional
  - Percutaneous thrombectomy
  - IVC filter (suprarenal)

- Surgical intervention
  - Refractory to medical management
  - Septic thrombophlebitis → Ovarian vein resection

Treatment for Chronic

- Follow paradigms for refluxing ovarian vein and pelvic congestion syndrome


Conclusions

- High index of suspicion
- MRI
  - Acute vs. subacute
  - Acute / subacute
    - ANTICOAGULATION ± antibiotics
- Refractory patients
  - Endovascular vs. surgery
- Chronic
  - Treatment for pelvic congestion
THANK YOU