Well-recognized venographic signs of significant iliac vein compression in asymptomatic young volunteers

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Disclosure
Speaker name:

I have the following potential conflicts of interest to report:

- Consulting: Cook medical; Optimed GmbH; Bard; Volcano/Philips; Straub; Bentley; Vesper Medical;
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest
May-Thurner/NIVL/Venous Compression

- 50% stenosis on venography
  - Multiple angulations
- 50% stenosis on IVUS
  - Fibrotic spurs
- Angiographic signs
  - Collaterals
  - Pancaking
  - Translucency/impression of the common iliac artery
Debate

- “False-positives” on CT well-known
- Arbitrary thresholds on angio and IVUS
- No relation with hemodynamics
- No causality between lesion and clinic
- Position of patient influences lesion severity

Thus: potential overtreatment due to angiographic and IVUS findings?
Study design

• 20 healthy subjects (asymptomatic for venous)
• Exclusion CEAP ≥C2/VCSS ≥2
• Left groin access, 6F
• AP and lateral angiography 10/5
• Angiographic signs scored
  • Collaterals, CIV compression, lumen deformity, translucency due to CIA
# Results

<table>
<thead>
<tr>
<th>Table 1. Demographics of included subjects.</th>
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</thead>
<tbody>
<tr>
<td>Age, years (Median, IQR)</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Females, $N$ (%)</td>
</tr>
<tr>
<td>Males, $N$, %</td>
</tr>
<tr>
<td>Venous history, $N,%$</td>
</tr>
<tr>
<td>Smoking, $N,%$</td>
</tr>
<tr>
<td>Abdominal wall collateral, $N,%$</td>
</tr>
<tr>
<td>CEAP</td>
</tr>
<tr>
<td>C0, $N$, %</td>
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<tr>
<td>C1, $N$, %</td>
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<tr>
<td>&gt; C2, $N$, %</td>
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<td>VCSS</td>
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<tr>
<td>0–1, $N$, %</td>
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<tr>
<td>≥2, $N$, %</td>
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</tbody>
</table>

$N =$ number; CEAP = Clinical; aetiological; anatomic; and pathophysiological; VCSS = Venous Clinical Severity Score.
Results
Results

• 16 (80%) showed at least two signs indicative of May-Thurner compression

• In the remaining subjects, three (15%) had narrowing of the CIV without collaterals

• One (5%) had no obstructive signs.
Results
Significance

- Patients with varicosities
  - 78% have reflux only
  - 8% have obstruction only
  - 14% have both
  (Cesarone, Angiology, 2012)

- Overtreatment in about 60%
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