Starting with deep venous treatment

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The Netherlands
• Maastricht University Medical Centre
  • Patients referred to dedicated venous outpatient clinic with multidisciplinary team of vascular surgeons, interventional radiologists and vascular technicians

• VieCuri Medical Centre
  – General hospital, business case in cooperation with vascular surgery - radiology – vascular medicine
  – Additional cases from dermatologists, phlebologists and gynaecologist
• Inform your colleagues
  – Which patients
  – Which treatment options
  – Highlight the outcome of treatment for patients (QoL ++)

• Patient selection
  – Vascular surgery / dermatology
    • recurrent varicosis / suspicion of venous ulcerations, venous claudication
  – Internal medicine
    • iliofemoral DVT cases, recurrent (iliofemoral) DVT cases
  – Gynaecology
    • pelvic congestion
- Basic selection criteria
  - C4-C5-C6 disease
  - Varicosities in the groin extending contralaterally or ascending across the abdomen
  - Fast recurrent varicosities after treatment (< 1 yr)
  - Persisting venous ulcerations despite adequate compression therapy

- Venous claudication
  - Limping / swelling / pain due to inadequate venous draining
Clinical

• Venous claudication
• Social impact (QoL)
• Ulcerations
• Prior history of DVT, Pulmonary Emboli, Venous surgery (superficial and/or deep system)
• DVT causes (pregnancy, immobility, surgery, trauma, known coagulation disorder)
• Family history DVT / varicosities
• Compression therapy
• Medication (Anti-coagulant therapy)
• Intoxication (Alcohol, Smoking, Drug abuse)
• CEAP, Villalta
Imaging

- Duplex ultrasound
- MR-Venography
- CT-Venography
- Conventional Flebography
- IVUS

Aim: non-invasive assessment of the entire deep vein system prior to any invasive (treatment) approach
Assessment

Imaging key points

When starting, select patients with isolated common and/or external iliac vein obstruction

Avoid common femoral, femoral and profunda femoral (total) occlusions
Sedation

• Depends on local situation
  – Local anesthesia access point(s)
  – Mild / deep sedation for recanalisation
    » Anesthesiologist
    » Anesthesiology nurse
    » Independent

– Pain medication peri- and post procedural
Postprocedural

Medication

- Peri- and post procedural pain medication
- Anti-inflammatory drugs
- Anti-coagulation (3-6 months therapeutic levels)

Compressive stockings

- Post-procedural
  - Class 2 stockings, thigh-high
    - 2 weeks, remove if comfortable without
  - If available pneumatic compression stockings
    - Ambulant period

Follow up

- Post-procedural follow up Duplex on day 1 & 14, then after 6 months
Example case
Female, 37 yrs, referred by vascular surgeon

- Fast recurrent varicosities after treatment by phlebologist
- On clinical examination oedema of left leg (upper and lower) with mild pigmentation (C3-C4)
- Venous claudication during work (standing ++)
- DVT after 2\textsuperscript{nd} pregnancy at 29 yrs of age
- Progressive complaints since superficial treatment
Example Case

Duplex:
Obstruction of the left common and external iliac tract (May-Thurner +)

Minor post-thrombotic changes proximal common femoral vein

Mild insufficiency proximal femoral Vein

Insufficient remnant side branch of greater saphenous vein
MR Venography

Obstruction of the left common and external iliac tract with presacral collaterals

Minor post-thrombotic remnants in the proximal common femoral vein with groin collaterals (including labia)

Open femoral and profunda femoral vein
Example Case
Treatment: Rekanalisation + Stenting
Follow up

Duplex ultrasound
- Stent patency
- Signs of inflow or outflow limitation
- Thrombosis?
Follow up

Conventional X-ray
- Stent geometry
- Kinking/ crushing
Conclusion

- Reach out to your colleagues involved with venous disease (vascular surgery, phlebology, dermatology, vascular medicine, gynaecology)
- Inform them about the potential benefits for their patients (increased QoL, less chronic symptoms, phlebologists can continue superficial vein treatment afterwards)

Be selective to avoid early failures
Thank you for your attention

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