Mechanochemical Ablation: The 3-Year Outcome Of A Prospective Trial On 100 Patients With GSV Incompetence

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Disclosures
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Endothermal ablative techniques
Need for tumescence
Risk for thermal injury
Postoperative pain
Hardware

Mechanochemical endovenous ablation – MOCA™

Mechanism of action:
- Combination: Mechanical damage + Sclerotherapy
- Mechanical: rotating wire → cellular damage to intimal layer and spasm of the vein
- Pharmacotherapy: sclerosants penetrating the vessel wall → obliteration
- No tumescence anesthesia required!
- MOCA™ is NOT a variation on foam sclerosing

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Early outcome

Midterm outcome of prospective series

- 104 GSVs treated in 85 patients in two centers
- Female 69%
- CEAP C2 (34%) C3 (30%) C4 (27%)
- VCSS 4.0 (1.0-13.0)
- Diameter GSVs 5.2 mm (3.5-12.8 mm)
- Treated segment 45 cm (20-62 cm)
- procedural time 11 (6-25) min
- Polidocanol used as sclerosants
- Technical success 99%
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Treatment protocol

- Patient in horizontal position
- Start rotating first to create spasm
- Pullback rate of 7 sec per cm
- The proximal 10 cm was treated with 2 mL of polidocanol 2% and the remaining vein with polidocanol 1.5%
- Compression stockings first 24 hrs continuously and 2 weeks during daytime
- Full activity immediately

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One-year results

- Post-procedural pain (14 days) 7.5 mm (IQR 0-10 mm)
- Time to work resumption 1.0 day (IQR 0-4.0 day)
- Time to normal activities 1.0 day (IQR 0-1.0 day)
- Adjunctive treatment (SCT) 22%

At one year:
- Anatomical success 88%
- Clinical success: 93%
- AVVQ improved from 6.6 (4.0-11.0) to 2.4 (0.5-6.2)

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Three-year results

- median follow up 36 months (12.5-46.3 months)
- 14 patients (16 GSVs) lost to follow up (16%)
- One patient died (intracranial hemorrhage)
- Recanalisation in 15/502 veins (3%)
  - 8 complete recanalisations (1.6%)
- Anatomical success;
  - Two years 89.5%
  - Three years 86.5%
- Clinical success;
  - Three years 83.0%
  - VCSS significantly deteriorated from 1.2 ± 1.4 at 12 months to 1.8 ± 1.5 at 36 months

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