Mechano-chemical ablation for endovenous occlusion

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Disclosure

• I do not have any potential conflict of interest
Variety of venous diseases

- Truncal vein disease
- Enlarged tributaries
- Perforator incompetence
- Chronic venous insufficiency
- Venous ulcer
- Teleangiectasias
- Venous malformations
The aims of venous ablation

- Eliminate reflux
- Good cosmetic results
- Minimal complications
- Avoid recurrency
- Painless procedure
- Minimal operative strain
- Quick recovery
- QOL improvement
Mechano-chemical ablation

COMBINED PROCEDURE – endovenous mechanical and chemical ablation

MECHANIC – rotating wire causes spasm end endothelial lesion

CHEMICAL – sclerosing agent penetrates vein wall

RESULT – closure of the treated vein
MOCA device
MOCA catheter tip
MOCA action
MOCA procedure:

Percutaneous access: 4 Fr or 18G

No guidewire or long sheath

Curved tip: easy to navigate

Pullback: 1.5 mm/sec = 6-7 sec/cm

Polidocanol: 2% fluid (max. 8 ml)

No tumescent!
MOCA procedure:
MOCA results:

- > 20000 cases worldwide (GSV/SSV)
- > 94-96.7% occlusion rate – follow-up 6w-24mo
- QOL – improves significantly (like any other ablations)
- DVT/PE - 0
- Phlebitis 4-14%, Ecchymosis 10-12%, Paresthesia 0
- Perioral numbness 4-5% - Endothelin release
- No tumescent – longest part of procedure
- Return to daily activity: 1.2 days
MOCA – own data

• 151 patients between 11.05.2013 and 17.01.2015
• 110 F, 41 M – mean age: 49 yrs (29-82)
• 133 GSV, 15 SSV, 3 GSV+SSV
• CEAP: 2-3 – 146 cases, 5-6 – 5 cases
• Vein diameter: 6,9 mm (5-10)
• Treated length: 44 cm (12-70)
• No anesthesia needed!
• Sclerosing fluid: 7,4 ml PD 2% (3-12)
• 96,8 % occlusion rate at 6 mo (partial recanalisation in 4 patients)
After the closure of the truncal vein (GSV or SSV) the enlarged tributaries:

- disappear due to pressure drop
- thrombose and slowly disappear
- decrease in size, but need further treatment
Tributaries disappear after MOCA treatment

63 y F – before surgery
Tributaries disappear after MOCA treatment

63 y F – before surgery: truncal reflux and enlarged tributaries
Tributaries disappear after MOCA treatment

63 y F – before surgery and 1 month after MOCA procedure
Tributaries thrombose and slowly disappear

43 y M – before surgery
Tributaries thrombose and slowly disappear

43 y M – before surgery: truncal reflux and enlarged tributaries
Tributaries thrombose and slowly disappear

43 y M – before surgery and 6 weeks after MOCA procedure
Tributaries need further treatment

37 y M – before surgery and 1 month after MOCA procedure
MOCA – Pain scores

VAS - MOCA
Endovenous ablations – VAS

Graph showing the comparison of VAS (Visual Analog Scale) scores for MOCA, RF, and laser ablations over time (PREOP, OP, POSTOP1, 1, 2, 3, 4, 5, 6, 7, 10, 1MO, 6MO, 1YR).
MOCA – QOL scores

PREOP | POSTOP 1MO | POTOP 1YR

VCSS - MOCA
Why to choose MOCA?

- High closure rates
- Easy to use
- Minimal complications
- Tumescentless, fast and painless procedure
- Quick recovery, immediate activity
- Single use device, cost-effective
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