

RFA, EVLT, and NTNT Therapy for Superficial Venous Reflux: How to Choose?

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RFA

- Radio Frequency Ablation
 - First reported in 2002
 - Can treat from SFJ to zone 6 for GSV
 - SPJ to zone 7 for SSV
 - Must use tumescent
- Excellent efficacy with closure rates $>93\%$ in most studies



Disposable catheter
inserted into vein



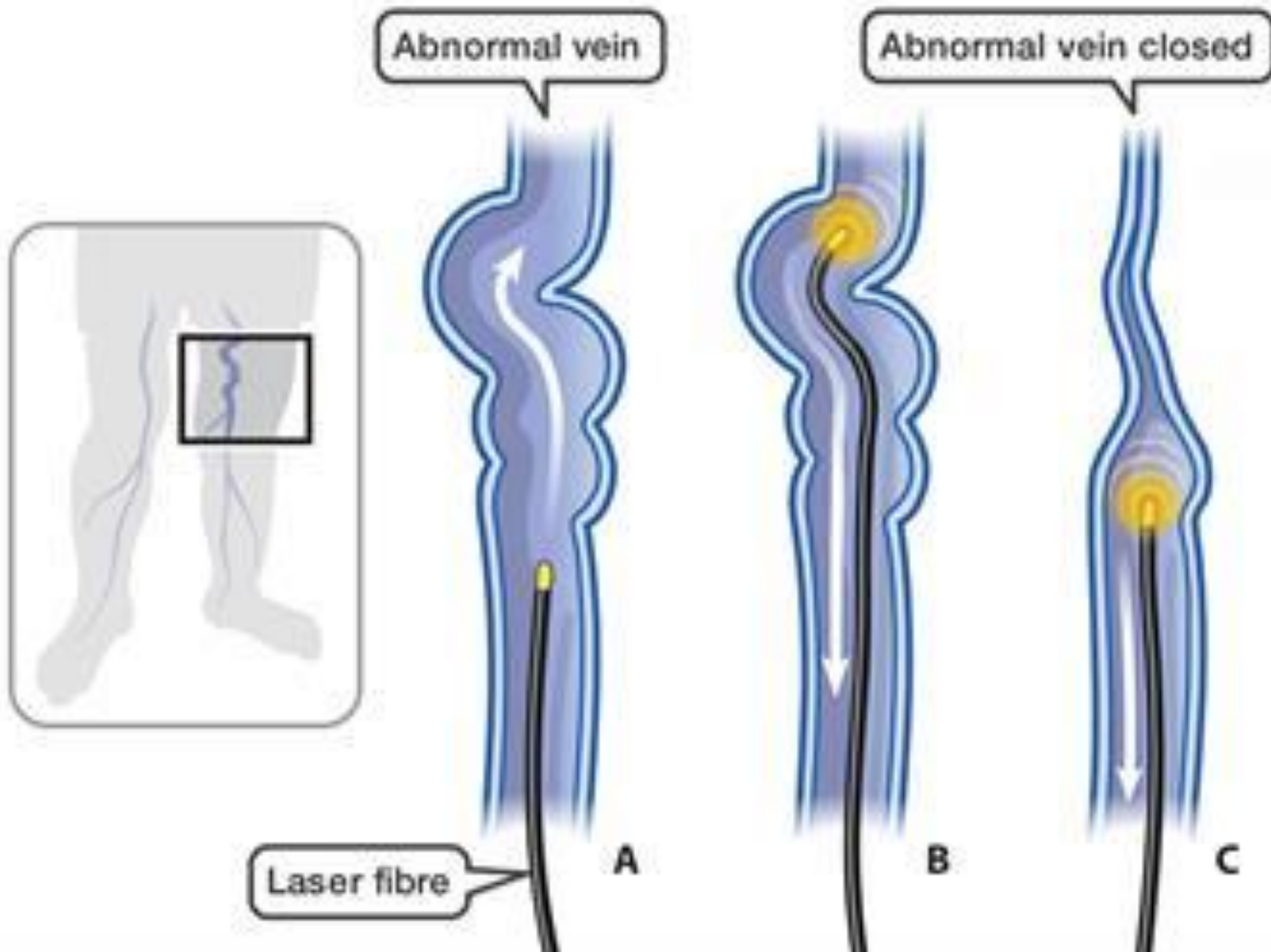
Vein heats
and collapses



Catheter withdrawn,
closing vein

EVLT

- Endovenous Laser Ablation
 - Very similar to RFA as far as procedure goes
 - + tumescent
 - Can treat the same zones as RFA
- Efficacy rates are similar but slightly higher in some studies than RFA

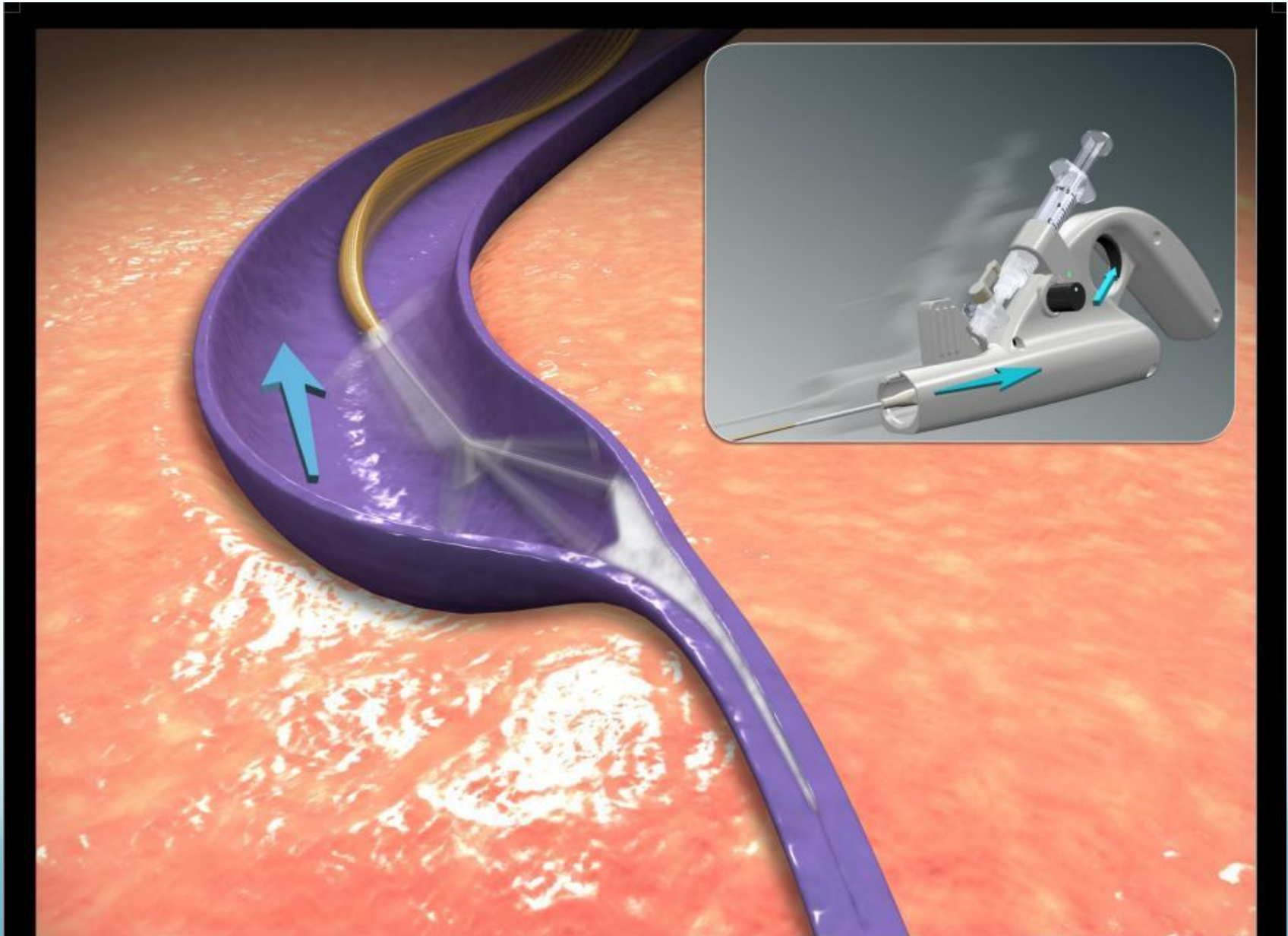


Comparing RFA to EVLT

- Early studies showed more discomfort from laser ablation, but that was with the lower wavelength lasers.
- With higher wavelength lasers, discomfort and bruising has decreased.
- In my practice, I use both and don't notice a difference with pt satisfaction or ablation results.
- Price is similar between the two.
- No significant difference in procedure time.

MOCA

- Mechanical Occlusion with Chemical Assistance
 - No thermal energy
 - No tumescent
 - Uses a wire to irritate the vein and liquid sclerosant
 - No capital investment, all disposable
- 94% closure rate at 3 yrs.
- Able to treat entire GSV to ankle
- Good for superficial gsv
- Only reimbursed from Medicare, not private insurance
- I have limited experience with it, but it is easy to use



CAC (CyanoAcrylate Closure)



PEM (Polidocanol Endovenous Microfoam)

- Varithena, BTG
 - Approved for GSV, AASV, VV of GSV system above and below the knee
 - Not SSV

NTNT Advantages: CAC, MOCA, PEM

- SSV, BK GSV, suprafascial – can go to malleolus
- C5 –C6 – antegrade (ankle) or retrograde tumescence hard to place
- AK GSV or AAGSV – anything works
- Minimal nerve/skin injury

	ADVANTAGES	DISADVANTAGES
MOCA	<p>No foreign body left</p> <p>Longest follow up of all NTNT</p> <p>Tortuous veins – angled wire</p> <p>Compression 1 day</p> <p>>100,000 cases worldwide</p> <p>* Only one with a code and RVUs</p>	<p>Need to pullback/inject simultaneously</p> <p>Learning curve</p>
CAC	<p>Segmental ablation</p> <p>Pullback rate variable eliminated</p> <p>Second longest follow up</p> <p>>100,000 cases worldwide</p> <p>No post procedure compression</p> <p>Perforators – PAPS ?</p>	<p>Foreign body left</p> <p>Phlebitic reaction</p> <p>Tortuous veins – difficult</p>
PEM	<p>Pullback rate variable eliminated</p> <p>Tortuous veins – foam traverses</p> <p>Treat branch varicosities also</p> <p>Perforators - PAPS</p>	<p>Requires 2 people for procedure</p> <p>IFU – 2 weeks compression</p> <p>Not indicated for SSV</p> <p>Cannister good only 1 month</p>

Final Thoughts: TT vs. NTNT (need both)

TT

- Big veins >10-12 mm
- Longer F/U
- Nerve – concern
- Patient comfort – tumescence (learning curve)

NTNT

- >80% of saphenous veins
- Shorter F/U but equal
- Nerve – no issue
- Patient comfort: better
- Shorter learning curve?