



Research Update #1 Research Presented at the International Union of Angiology

Ted King, MD, Assistant Medical Director, Vein Clinics of America, recently presented the following study at the 22nd World Congress of the International Union of Angiology. This study was selected as part of the most recent and significant advancements in the treatment of varicose vein disease.

ENDOVENOUS LASER ABLATION: DOES FLUENCE MAKE A DIFFERENCE?

Objective: To evaluate the possible effect and predictive value of fluence (J/cm²) on the success of treatment with endovenous laser ablation.

Methods: Two hundred fifty-seven successive cases of endovenous laser ablation (980 nm diode laser and 1320 nm Yag laser) of the GSV, SSV and other non-GSV veins were evaluated for success of treatment at 1, 3, 6, and 12 months. Any reflux (> 0.5 sec.) at the SPJ or SFJ, seen on Duplex ultrasound and pulsed color Doppler imaging, was called treatment failure. Fluence was determined by dividing the energy delivered to the vein by a calculated estimate of the surface area of the treated segment of vein.

Results: 129 cases treated with the 1320 Yag laser and 128 cases treated with the 980 diode laser were evaluated. 18 of the cases treated with the 1320 and 12 of the cases treated with the 980 laser were called failures.

	Average J/cm	Average J/cm ²	Average CEAP	Average VDS
980				
Success	52.8	35.5	4.0	9.9
Failure	56.1	26.9	4.2	10.5
1320				
Success	60.1	42.0	3.9	9.8
Failure	62.2	37.3	4.1	12.0

Conclusions: Energy delivery (J/cm) would not appear to be as reliable a predictor of adequate endovenous laser treatment as fluence (J/cm²). This is true for both the 980 diode laser and the 1320 Yag laser. Although important factors to assess, CEAP and VDS do not appear to be reliable predictors of treatment outcome either.

We hope you have found this information useful.