

**Research Update #2  
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 22<sup>nd</sup> 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.

**“PROGRESSION AND RECURRENCE OF VEIN DISEASE IN PATIENTS TREATED WITH ENDOVENOUS LASER ABLATION : ONE YEAR EXPERIENCE”**

**Objective:** There is now abundant data looking at the incidence of recurrence of reflux at the SFJ and even SPJ after endovenous laser ablation great and small saphenous veins. Tracts of recurrent flow occur in veins that have been treated with laser at sites other than the junctions. There is little data that quantifies how often this occurs and what causes it to occur.

**Methods:** In this retrospective analysis of 28 cases, 26 Great Saphenous Veins, 4 Small Saphenous veins, 2 veins of Giacomini, 2 Posterior accessory veins, and 1 non-saphenous vein were treated with endovenous laser ablation. Varicose branches not amenable to endovenous laser ablation were treated with ultrasound-guided foam sclerotherapy. Complete Duplex ultrasound scanning was done at 1 month, 3 months, 6 months, and 12 months and any reflux (>0.5 sec.) was noted. New vein disease (progression), recurrent or continued flow through a segment of previously lased vein (recurrence), and continued or new branch vein reflux seen on ultrasound at any follow-up evaluation was treated with further ultrasound-guided foam sclerotherapy.

**Results:**

	<b>1 month</b>	<b>3 months</b>	<b>6 months</b>	<b>12 months</b>
	Recurrence / Progression	Recurrence / Progression	Recurrence / Progression	Recurrence / Progression
IP1	6/1	5/1	1/0	2/0
IP2	1/1	2/1	0/0	0/0
SFJ	5/0	1/1	1/1	0/0
SPJ	1/0	1/0	1/0	1/0
Branch feeder	5/0	7/0	4/0	3/0

IP1 = incompetent perforator in the thigh

IP2 = incompetent perforator in the calf

**Conclusions:** In the first year after endovenous laser ablation, incompetent perforators (thigh more than calf) and antegrade flowing branch veins are a greater source of recurrence and progression of vein disease than failure to close or reopening of the SFJ or SPJ. Assurance of long lasting treatment success will depend on careful Duplex ultrasound follow up looking for incompetent perforators and feeder veins along the course of the treated veins, as well as evaluation of the treated junctions.