

## **VNUS Radiofrequency Ablation as First Line Treatment of Varicose Veins**

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**Introduction:** Endovascular radiofrequency ablation (VNUS procedure) is a method to safely treat symptomatic varicose veins with reflux. This procedure is a minimally invasive alternative to traditional vein stripping.

**Objective:** To determine the efficacy of the VNUS procedure as a first line treatment for symptomatic insufficient greater saphenous veins in an in-office setting with local anesthesia.

**Participants:** 179 patients and 241 limbs were treated over a two year span using the VNUS procedure. Patients were evaluated by ultrasound to determine venous insufficiency, then treated and followed in clinic by ultrasound to determine total occlusion and presence of deep venous thrombosis (DVT).

**Results:** We treated 179 patients (49 males, 130 females) and 241 limbs, with an average age of 53 years old. Pre procedure Clinical Etiological Anatomic and Pathologic (CEAP) scores were C2s: 236, C3s: 4, C5s:1. Average pre procedure vein size was 73mm and reflux of 3.0 seconds. Average vein length treated was 29.3cm. All procedures were carried out in the office using tumescent anesthetic (average 293mL injected) and all patients were allowed to go home 30 minutes post treatment. Post procedure total occlusion (TO) rate was 93% and occlusion was maintained on follow up at six months. Patients were mobile immediately after the procedure; CEAP score improvement was noted in all patients with TO post procedure. Five percent of patients noted minor complaints. Two patients with prior history of DVT were noted to have DVT post procedure.

**Conclusion:** The VNUS procedure is efficacious. It is beneficial for both patient and provider because it is an in-office, minimally invasive procedure which results in symptomatic improvement, few side effects, low complication rate, and quick recovery.