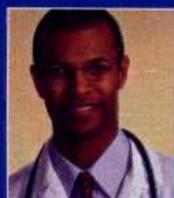




# American Venous Forum 16<sup>TH</sup> Annual Meeting

**FEBRUARY 26 – 29, 2004**



Gaylord Palms Resort  
& Convention Center  
Orlando, Florida



***Final Program***

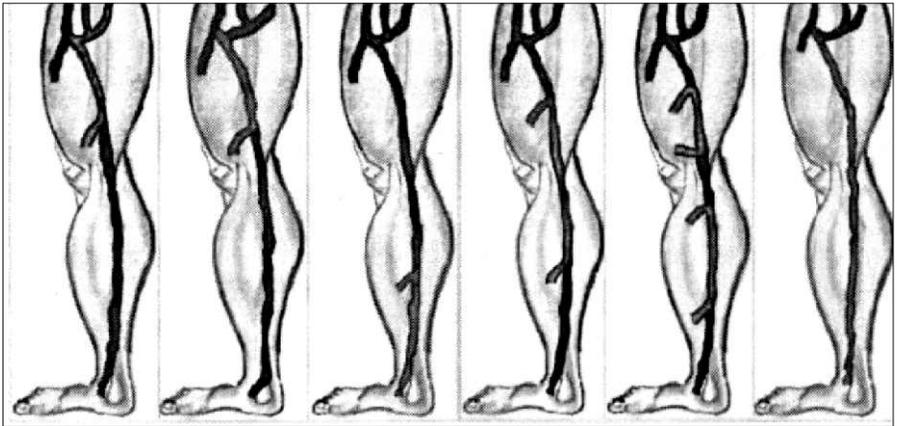
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### **Patterns of Reflux in Saphenous Veins of Women with Varicose Veins**

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**BACKGROUND:** Varicose veins have been linked to reflux in the great saphenous vein (GSV), and, in particular, to reflux at the saphenofemoral junction. At early stages of disease, however, varices may be associated with reflux limited to a segment of the GSV or the small saphenous vein (SSV). This study was designed to estimate prevalence of specific patterns of GSV and SSV reflux and to determine frequency of junction involvement in women with varicose veins.

**METHODS:** Mapping of GSV and SSV reflux was performed with color-flow, duplex Doppler ultrasonography consecutively in 590 extremities of women with varicose veins (CEAP class C2) but without edema, skin changes, or ulcers (C3-C6). Patterns of GSV and SSV reflux were classified as: I-peri-junction (near the saphenofemoral or saphenopopliteal junction or Giacomini vein), II-proximal, III-distal, IV-segmentar, V-multi-segmentar, or VI-diffuse from the junction to the ankle.



**RESULTS:** Saphenous vein reflux was detected in 472 extremities (80%): 353 (60%) in the GSV, 19 (3%) in the SSV, and 100 (17%) in both veins. The most common pattern of GSV reflux was segmentar (58%, 342/590), either single, isolated segment (36%, 213/590), or multi-segmentar (22%, 129/590), followed by distal (11%, 65/590), proximal (5%, 32/590), diffuse (2%, 10/590), or peri-junction (<1%, 4/590). The saphenofemoral junction was involved with reflux in 7% (42/590) of the extremities. GSV reflux at the thigh level was present in 37% (220/590) limbs. GSV calf reflux was noted in 58% (345/590) of the legs.

**CONCLUSIONS:** Correction of saphenofemoral junction reflux may be needed only in less than 10% of the extremities of women with varicose veins without edema. Only about 1/3 of the extremities in the C2 class may need treatment of the GSV in the thigh. A detailed ultrasonographic mapping of the saphenous vein is recommended prior to saphenous vein surgery.

## Is Saphenous Vein Mapping Justifiable in Women with Telangiectasias?

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**BACKGROUND:** Telangiectasias have been treated with sclerotherapy without concomitant treatment of the saphenous veins. Although this approach may be incomplete, screening patients with telangiectasias for saphenous vein insufficiency may not be cost effective if prevalence of saphenous reflux is low. To verify if ultrasonographic (US) screening is justifiable, this study estimated the prevalence and type of saphenous vein reflux in women with telangiectasias.

**METHODS:** Patency and reflux mapping of the great and small saphenous veins (GSV, SSV) were performed with color-flow, duplex Doppler US prospectively in 1,740 lower extremities of 910 consecutive patients. Most studies were performed in women (86%). A subgroup of 269 limbs of women with telangiectasias (CEAP class C1) but without varices, edema, skin alterations, or ulcers (C2 – C6) were included in this analysis. Symptoms were present in 210 limbs (78%). Patterns of reflux were classified as I – peri-junction (near the femoral, popliteal junction or Giacomini vein; II – proximal; III – distal; IV – segmentar; V – multi-segmentar; and VI – diffuse.

**RESULTS:** Reflux was detected in 125 extremities (46%): 105 (39%) in the GSV, 6 (2%) in the SSV, and 14 (5%) in both veins. The most common pattern of GSV reflux was segmentar (73%, 87/119), followed by distal (18%, 21/119). Prevalence of segmentar plus distal GSV reflux patterns (40%, 108/269) was significantly higher than junctional plus peri-junctional reflux (4%, 11/269) ( $p < 0.001$ ). Reflux prevalence was similar in symptomatic (47%, 99/210) and asymptomatic (44%, 26/59) limbs ( $p = 0.79$ ).

**CONCLUSIONS:** Mapping of GSV reflux in women with telangiectasias is justifiable, even in asymptomatic extremities. A short screening protocol may include reflux detection at mid- and distal-thigh and midcalf. Further research will determine if treatment of segmentar reflux is needed to avoid progression of disease toward severe valvular insufficiency.