

Patient characteristics and physician-determined variables affecting saphenofemoral reflux recurrence after ligation and stripping of the great saphenous vein

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Objective

To identify patient and physician-controlled treatment variables that might predict the persistence or redevelopment of saphenofemoral junction (SFJ) reflux.

Methods

Thirteen European centers, with substantial lower extremity venous disease practices, examined their experience with SFJ ligation and GSV stripping for primary varicose veins in patients followed for ≥ 2 years, entering their data into a protocol-driven matrix that stipulated duplex Doppler imaging as an essential component of follow-up examinations and required a complete review of all peri-operative examinations, as well as all operative procedure and anesthesia notes. Matrix entries were centrally audited for consistency and credibility, and queried for correction or clarification before being accepted into the study database. Presence or absence of Doppler-detectable SFJ reflux was the dependent variable and principal outcome measure.

Results

Among 1,638 limbs, 315 (19.2%) had SFJ reflux. After adjustment for follow-up length and imputing for missing values, multivariable analysis identified seven significant predictors. Ultrasonic groin mapping (odds ratio [OR], 0.28; 95% confidence interval [CI], 0.20 to 0.40) and < 3 -cm groin incisions at or immediately below the groin crease (OR, 0.50; 95% CI, 0.32 to 0.78) were both uniquely associated with diminished probability of follow-up SFJ reflux. Prior parity (OR, 2.69; 95% CI, 1.45 to 4.97), body mass index > 29 kg/m² (OR, 1.65; 95% CI, 1.12 to 2.43), < 3 -cm suprainguinal incisions (OR, 3.71; 95% CI, 1.70 to 5.88), stripping to the ankle (OR, 2.43; 95% CI, 1.71 to 3.46), and interim pregnancy during follow-up (OR, 4.74; 95% CI, 2.47 to 9.12), were each independent predictors of a greater probability of having SFJ reflux.

Conclusions

The findings suggest that ultrasound groin mapping, reticence for short suprainguinal or longer groin incisions and extended stripping, and counseling women about the effect of future pregnancy are prudent clinical choices, especially for obese or previously parous patients.