

Short Saphenous Varicose Vein Associated with Incompetent Gastrocnemius Vein

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The recurrence rates following short (small) saphenous varicose vein surgery are high [1-2]. The previous reports that analyzed recurrent cases documented the major causes of recurrence to be the incomplete or wrong division of the sapheno-popliteal junction, remaining of tributaries at its root and neovascularization reconnecting the superficial veins to the popliteal vein [3-9]. Although several studies also noted the presence of an incompetent gastrocnemius (sural) vein in recurrent cases [5,10,11], there have so far been no reports indicating that an incompetent gastrocnemius vein may be the cause of the recurrence after short saphenous varicose vein surgery. In addition, the suitability of ligation of the gastrocnemius vein is unknown when recurrence after short saphenous varicose vein surgery is associated with an incompetent gastrocnemius vein.

Some authors [12-16] have reported cases that received ligation of the incompetent gastrocnemius vein which itself had been the cause of either a varicose vein or bursting pain in the calf. On the other hand, the disappearance of gastrocnemius vein incompetence after long saphenous vein surgery has also been reported [17]. However, the management of the incompetent gastrocnemius vein accompanying a short saphenous varicose vein has so far only rarely been discussed [5,18,19]. Therefore, when a short saphenous varicose vein before surgery is associated with an incompetent gastrocnemius vein, then the effect of ligating the gastrocnemius vein while performing simultaneous short saphenous vein surgery in order to reduce recurrence remains to be elucidated. Moreover, the complications and prognosis of such a procedure have not been surveyed in cases that received ligation of the root of gastrocnemius vein simultaneously with short saphenous vein surgery.

In the era of color-flow duplex ultrasonography, direct imaging of the gastrocnemius vein is relatively easy compared to angiography [16,20,21], and differentiating the gastrocnemius vein incompetence from short saphenous vein incompetence is also easy relative to the continuous wave Doppler ultrasound examination [22]. It is therefore time to survey the ideal management of an incompetent gastrocnemius vein in conjunction with a short saphenous primary/recurrent varicose vein.

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