dure was often based on clinical outcome and not angiography.

Chang et al. [8] reported the short-term clinical use of 31 lesser saphenous veins with favourable results, but post-operative angiography was not performed.

The short saphenous vein may also be occasionally used for vascular surgery. Goyal et al. [9] reported a 77% two-year patency for popliteal-crural bypasses in patients having surgery for limb salvage. Shandall et al. [10] performed duplex ultrasound on 36 lesser saphenous veins prior to popliteal bypass and found the diameter to be between 2.8 mm and 4.2 mm. They descriptively reported favourable outcomes. Several other papers described the use of the lesser saphenous vein for peripheral revascularisation but again this was only in a handful of patients and, thus, we elected not to add them to our table.

With regard to the operative technique of harvesting, a few different techniques exist. The more usual approach would be to have the hip flexed by an assistant, or alternatively the patient would be prone for harvest and then turned back over once harvest has been completed. Lamphere et al. [7] describe a neat little trick whereby the legs are elevated using a Thompson self-retaining retractor to about 45 degrees or more and the short saphenous vein harvested from below.

Chang et al. (Chang, 1993 30/id) also describe a novel technique whereby an incision is made and carried through and deep into the muscular fascia, posterior to the tibia, along the length of the leg, developing a fascial-cutaneous flap. Preoperative mapping and skin marking is used to find the vein.

7. Clinical bottom line

Small reports give a two-year patency of 77% and a six-year patency of 65% and duplex studies show that the short saphenous vein may be from 2.8 mm to 4.2 mm in diameter. However, caution should be applied when considering these patency rates as they are derived from individual studies of <40 patients. The lesser saphenous vein may be considered as an alternative to brachial or cephalic vein in patients with unsuitable long saphenous vein, and unsuitable mammary, radial or gastroepiploic arteries.

References


eComment: The small saphenous vein as an alternative conduit for coronary artery bypass grafting

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I read with much interest the article by Jacob et al. [1] about the patency of the small saphenous vein (SSV) (also short saphenous vein) as an alternative conduit for coronary artery bypass grafting (CABG). I congratulate the authors for their effort in developing this very important meta-analysis. I would also like to share additional comments on this topic.

Currently, cardiovascular surgeons have been challenged by ever-increasing numbers of patients with poor quality, or deficient quantity, of conduit available for CABG. As a result, alternative conduits and/or methods to provide a safe and effective CABG have been put into practice.
SSV is an alternative conduit in patients with unsuitable arterial and insufficient venous grafts for CABG. SSV may be harvested with supine position of the patient on the table, which is adduction and internal rotation at the hip level and flexion at the knee level.

The outcome of CABG with SSV graft is unsatisfactory because venous grafts are prone to occlusive disease. Occlusion rate of venous grafts is around 12–20% during the 1st year and 2–4% annually for the next 4 or 5 years [2].

As described by the authors, long-term angiographic follow-up of the patency of SSV grafts is not sufficient and there are trials with a small number of patients. In our clinic, we used SSV in three patients due to insufficient venous graft for the last five years. The patients were clinically asymptomatic at follow-up but there still have been no angiographic findings, which support this clinical status.

Finally, the strategy of CABG must be based on the fact that sufficient conduit should be available prior to sternotomy.

References


eComment: Short saphenous vein as a conduit in coronary artery bypass grafting

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I congratulate the authors for their effort to find out the patency rate of the short saphenous vein (SSV) when used as a conduit in coronary artery bypass grafting (CABG) [1]. During my training in cardiac surgery in the early and mid-nineties in the UK, I personally harvested more than 30 short saphenous veins as conduits during CABG surgery. The indication for SSV harvesting as mentioned by the authors was ‘used or unsuitable long saphenous and other arterial conduits’. The harvesting of SSV was more common during the early and mid-nineties because radial artery harvesting as a conduit for CABG was not favored by many surgeons. With regard to the operative technique of harvesting, we used the technique of flexing the hip by an assistant. I agree with the authors in their conclusion that SSV may be considered as an alternative to brachial or cephalic vein in patients with unsuitable long saphenous vein, and unsuitable mammary or radial arteries.

Reference