Surgery for varicose veins
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The aim of surgery for varicose veins is three-fold - the surgeon aims to abolish superficial reflux, minimise its chances for recurrence, and achieve this result in as cosmetic a fashion as possible, while aiming to avoid complications. To achieve these aims, all patients should be properly assessed by Duplex ultrasonography, performed by a sonographer experienced in the examination of venous reflux, and then have their operation individualised to their pattern of disease.

Saphenofemoral reflux is treated surgically by saphenofemoral ligation, aiming to divide second order branches in the groin to minimise recurrence. The great saphenous vein is stripped to the knee from above downwards via an inversion technique. Most reflux below the knee is via the posterior arch vein, and therefore stripping the GSV to this level has little effect on reflux, and inversion stripping to the knee minimises the risk of injury to the saphenous nerve. Experience has shown that if the GSV is not stripped it tends to increase the risk of recurrence; aiming to save the vein to use as a conduit for bypass surgery is usually unsuccessful in this scenario anyway. External banded valvuloplasty (Venocuff) is a surgical alternative for superficial reflux.

Reflux in the small saphenous vein may be treated satisfactorily by saphenopopliteal ligation. The value of stripping in this instance is less clear. The location of the junction must always be marked prior to operation using duplex scanning as the junctional anatomy is so variable. The sural nerve should be sought and preserved at surgery. A thorough knowledge of the anatomy of the popliteal fossa is essential in carrying out this surgery.

Treatment of perforator reflux via a surgical approach once again requires preoperative marking to localise incisions and minimise the extent of dissection required. Extensive operative approaches such as the Linton procedure involving large incisions through diseased skin are rarely carried out now. Other approaches have been sought to deal with this difficult problem, such as subfascial endoscopic perforator surgery (SEPS), to allow access to divide perforators without incisions in skin which is either ulcerated or recently healed.

The advent of less invasive procedures to deal with superficial venous reflux has led to a radical change in the treatment of patients with varicose veins. However, well performed surgery still has a place in the list of options to consider for these patients.