

ulcers. Most patients simply have unsightly veins, heaviness and aching of the legs, or mild ankle swelling; they need to be reassured that their condition is medically harmless, and some will then decide against active treatment.⁴ Some opt for support stockings, which are effective in relieving heaviness and aching.⁶ Most, however, find conservative management unacceptable; they want to be rid of their veins.

Careful assessment is important for patients who want treatment. Ordinary clinical examination may be adequate, but most vascular surgeons now use a Doppler ultrasound probe to listen to the flow in the veins during manoeuvres such as calf squeezing, the Trendelenberg test, and removal of venous tourniquets.⁷⁻¹⁰ The Doppler probe is particularly helpful in examining the short saphenous system¹¹ and recurrent varicose veins.⁷ The aim is to detect incompetence of valves between the deep venous system and the varicose veins. Incompetent valves occur most commonly at the saphenofemoral junction in the groin, but they also occur in the short saphenous vein behind the knee and in the direct perforating veins in the calf or thigh. If these are not identified and dealt with the varicosities will recur.^{7,12,13} Other methods of assessing the veins—such as venography or venous function tests—are not usually necessary for simple varicose veins but may be needed when there is a history of deep vein thrombosis, calf perforator incompetence, or surgery.^{7,12}

If there is no upstream incompetence of valves then injection treatment (compression sclerotherapy) is effective, especially for varicose veins below the knee, where good compression bandaging can be applied.¹⁴ Sclerotherapy clinics offer good early results to large numbers of outpatients at the expense of a few weeks of bandaging.¹⁵⁻¹⁸ If the varicosities recur injections can be repeated. Recurrence is common, however, because injections are often given to patients with incompetent valves, and over half of them will suffer recurrent varicose veins within five years.^{16,17}

When there are incompetent valves between the deep and superficial veins surgery provides the best long term treatment.^{7,16,17} These sites of incompetence are dealt with by dividing the main superficial vein flush with the deep veins and also dividing any nearby tributaries that might offer a route for recurrence.¹³ The long saphenous vein is usually stripped from groin to upper calf,^{9,19,20} especially if it is joined by an incompetent perforating vein in the lower thigh.^{12,21} Stripping to the ankle is unnecessary²² and often damages the saphenous nerve, causing some numbness in the foot.¹⁹ All varicosities should be carefully marked before operation and may then be removed by avulsing them through tiny incisions. Sutureless closure avoids stitch marks and provides the best cosmetic result.²⁰

Bilateral varicose vein operations are time consuming, and patients who need this procedure contribute substantially to long waiting lists. A team approach to surgery helps to save time; these are not operations for a solo surgical trainee. Unilateral procedures are certainly suitable for day case surgery, and some surgeons will operate on both legs in day patients.^{23,24} A few perform simple saphenofemoral ligation, which is followed later by outpatient sclerotherapy; but this is a more complicated approach for the patient.²³ Even after bilateral surgery patients should be mobilised and return to full normal activity as early as possible. The traditional advice

simply to “walk three miles a day” needs modification to encourage frequent activity rather than a single long walk.

Clear priorities are essential in managing the many patients presenting with varicose veins. Those with skin changes, ulcers, recurrent phlebitis, or a history of bleeding should be seen without undue delay, fully assessed, and treated. The many more with cosmetic worries or discomfort cannot be given priority over more urgent problems, and their management will depend on local circumstances. Ideally, they should be expertly assessed, counselled on the advantages and disadvantages of treatment, and offered whatever treatment they wish. In practice the choice is often between temporary improvement by sclerotherapy or a long wait for surgery. Such patients should be referred to hospital only after reassurance that their varicose veins are harmless and if they are still keen to have active treatment.

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- 1 Department of Health and Social Security. *Hospital episode statistics 1987-88*. London: DHSS, 1988.
- 2 Department of Health and Social Security and Office of Population Censuses and Surveys. *Hospital In-patient Enquiry 1975*. London: HMSO, 1983. (Series MB4 (15).)
- 3 Frankel S. The natural history of waiting lists—some wider explanations for an unnecessary problem. *Health Trends* 1989;21:56-8.
- 4 Madar G, Widmer LK, Zemp E, Maggs M. Varicose veins and chronic venous insufficiency: disorder or disease? *Vasa* 1986;15:126-34.
- 5 Brand FN, Dannenberg AL, Abbott RD, Kannel WB. The epidemiology of varicose veins: the Framingham study. *Am J Prev Med* 1988;4:96-101.
- 6 Chant ADB, Magnussen P, Kershaw C. Support hose and varicose veins. *Br Med J* 1985;290:204.
- 7 Royle JP. Recurrent varicose veins. *World J Surg* 1986;10:944-53.
- 8 Bladin C, Royle JP. Acquisition of skills required for use of Doppler ultrasound and the assessment of varicose veins. *Aust N Z J Surg* 1987;57:225-6.
- 9 Eklof B. Modern treatment of varicose veins. *Br J Surg* 1988;75:297-8.
- 10 Ruckley CV. *A colour atlas of surgical management of venous disease*. London: Wolfe Medical Publications, 1988.
- 11 Mitchell DC, Darke SG. The assessment of primary varicose veins by Doppler ultrasound—the role of saphenopopliteal incompetence and the short saphenous systems in calf varicosities. *Eur J Vasc Surg* 1987;1:113-5.
- 12 Corbett CR, McIrvine AJ, Aston NO, Jamieson CW, Lea-Thomas M. The use of varicography to identify the sources of incompetence in recurrent varicose veins. *Ann R Coll Surg Engl* 1984;66:412-5.
- 13 Starnes HF, Vallance R, Hamilton DNH. Recurrent varicose veins: a radiological approach to investigation. *Clin Radiol* 1984;35:95-9.
- 14 Fegan WG. Continuous compression technique of injecting varicose veins. *Lancet* 1963;ii:109-12.
- 15 Reid RG, Rothnie NG. Treatment of varicose veins by compression sclerotherapy. *Br J Surg* 1968;55:889-95.
- 16 Hobbs JT. Surgery and sclerotherapy in the treatment of varicose veins: a random trial. *Arch Surg* 1974;109:793-6.
- 17 Jakobsen BH. The value of different forms of treatment for varicose veins. *Br J Surg* 1979;66:182-4.
- 18 Batch AJG, Wickremesinghe SS, Gannon ME, Dormandy JA. Randomised trial of bandaging after sclerotherapy for varicose veins. *Br Med J* 1980;281:423.
- 19 Munn SR, Morton JB, Macbeth WAAG, McLeish AR. To strip or not to strip the long saphenous vein? A varicose veins trial. *Br J Surg* 1981;68:426-8.
- 20 Rivlin S. The surgical cure of primary varicose veins. *Br J Surg* 1975;62:913-7.
- 21 Sutton R, Darke SG. Should the long saphenous vein be stripped? A study by per-operative retrograde saphenography. In: Negus D, Jantet G, eds. *Phlebology '85*. London: John Libbey, 1986:196-9.
- 22 Macfarlane R, Godwin RJ, Barabas AP. Are varicose veins and coronary artery bypass surgery compatible? *Lancet* 1985;ii:859.
- 23 Bishop CCR, Jarrett PEM. Outpatient varicose vein surgery under local anaesthesia. *Br J Surg* 1986;73:821-2.
- 24 Neglen P, Einarrsson E, Jonsson B, Eklof B. Socioeconomic benefits of ambulatory surgery or compression sclerotherapy of varicose veins. In: Negus D, Jantet G, eds. *Phlebology '85*. London: John Libbey, 1986:159-62.

Correction

Non-steroidal anti-inflammatory drugs and peptic ulcers

An author's error occurred in this regular review by Dr C J Hawkey (3 February, p 283). In figure 6 the dosage of ranitidine should have been given as 150 mg twice daily, not 150 µg as published.