
Management of varicose veins of lower limb

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The term varicose veins includes the dilated venules, dilated superficial veins, dilated and tortuous saphenous veins and the dilated superficial veins of the post phlebotic syndrome. The veins draining the lower limb are the superficial, deep and communicating veins which connect the superficial to the deep veins. The superficial veins are the long and short saphenous veins and their tributaries. The deep veins are the plantar digital veins, anterior and posterior tibial veins, popliteal vein and femoral vein. The communicating veins are the ends of long and short saphenous veins, mid thigh perforating veins and the internal and external ankle perforating veins. Venous return from the legs depends on the venous return from the heart, the thoracic and abdominal pressure during respiration and the skeletal muscle pump in the calf during walking. Normally, there is marked decrease in the saphenous vein pressure with exercise after which there is gradual return of venous pressure to normal levels. In varicose veins there are lesser decreases in venous pressure with exercise and more rapid return to normal levels when walking ceases. Fifteen to twenty per cent of the adult population have varicose veins. A familial history has been noted in fifteen per cent of the patients. The female to male ratio is five to one. Although a familial predisposition is probably the most important cause of primary varicose veins, such factors as prolonged periods of standing, obesity and pregnancy are aggravating factors. The secondary varicose veins usually follow an 'attack of deep' vein thrombosis (and the resulting manifestations are called post-phlebotic syndrome) but they are also present in arteriovenous fistula and Klippel-Trenaunay syndrome. Some patients complain only of the cosmetic appearance of their leg. Others will complain of a tiredness in the leg, a heaviness of the leg, or a dull or throbbing pain in the leg. The pain or discomfort is characteristically relieved by elevation of the leg. Itching, dermatitis, night cramps, and eventually ulceration may be described by the patient. Clinical evaluation, including the Trendelenburg or Perthes test and the presence of stasis dermatitis or ulceration, is helpful but inconsistent guide to the status of the deep and perforating veins. Likewise, venography, plays a role in the definition of the altered hemodynamics in the calf venous pump. Measurement of ambulatory venous pressure has been the diagnostic standard for evaluation of the superficial venous hypertension that characterizes, and is responsible for, the cutaneous pathology in chronic venous insufficiency. Doppler ultrasonography is a non-invasive diagnostic method which is useful for evaluation of patients with chronic venous insufficiency. The complications of varicose veins include superficial thrombophlebitis, haemorrhage which may be fatal and skin and

subcutaneous complications which include ecchymosis, pigmentation, oedema, induration, dermatitis, ulceration and subcutaneous calcification. The treatment of choice for most varicose veins without complications is conservative management consisting of exercise, elevation, and fitted elastic stocking. Injection compression sclerotherapy aims at obliterating superficial varices by injection of sclerosant, followed by compression, which is maintained until the varicose segment is converted into a fibrous cord. The success rates vary from 21% to 99%. Surgical treatment is based on tying the long and short saphenous veins in the groin and popliteal fossa and stripping the superficial vessels, together with tying incompetent perforating vessels. The success rates vary from 40% to 98.6%.