## Preventing leg ulcer recurrence

Sir,

The article prevention of venous leg ulcer recurrence by MM Shenoy[1] was well-presented. The author has given a detailed account of how to prevent leg ulcer recurrence, especially of venous origin. Elsewhere in the issue, the pivotal role of compression therapy in the prevention of ulcer recurrence has been touched upon. However, in isolation or due to poor compliance and consequent cessation of compression therapy, 1-year venous ulcer recurrence rates as high as 69% have been reported. In other reviews, at least 50% of patients experienced repeated episodes of venous ulceration at 3-5 years of follow-up.[2] Over 50% of active ulcers are recurrent, and these data alone would favor the widespread introduction of preventive strategies.[3] Approximately, 30% of patients with venous ulcers have venous hypertension, primarily caused by incompetent valves in the saphenous veins.[2] Because compliance with compression therapy over time is poor, correction of venous hypertension is an attractive solution. Within the famous the effect of surgery and compression on healing and recurrence (ESCHAR) trial, recurrence rates for patients treated with compression and venous surgery were 12% at 1-year and 31% at 4 years. These were significantly lower than recurrence rates for patients treated with compression alone (28% at 1-year and 56% at 4 years).[4,5] Several surgical procedures have been advocated for the healing and prevention of venous ulcers such as crossectomy, saphenous stripping, perforator interruption or subfascial endoscopic perforator surgery, and endovascular laser and radiofrequency procedures. The latter have been used to treat venous insufficiency, but few comparative studies to venous surgery have been performed. Split-thickness skin grafting for coverage of the ulcer has a high rate of initial success, but recurrence rates are high.[6]

Some patients with venous ulcers and a history of deep vein thrombosis have obstruction of the iliac venous outflow tract as a major cause of venous hypertension. In many cases, these obstructed veins may be treated successfully with percutaneous recanalization and stenting to improve venous outflow from the limb. Limb pain and swelling are significantly improved, which should reduce the incidence of recurrent ulceration. In a recent study, it was reported that 74% of patients with venous ulcers were found to have thrombophilia on hematologic testing.<sup>[7]</sup> This suggested that venous ulcer patients should be routinely tested for hypercoagulable states. However, if a patient with venous ulceration has no history of deep venous thrombosis or superficial thrombophlebitis, it is unlikely that the anticoagulation would be recommended; so selective testing based on individual history is likely to be more cost-effective.

After ulcer healing, compression must be maintained chronically to prevent recurrent ulceration. Patient compliance with compression treatment is a critical component of successful wound care. Compression treatment prolongs the mean time to ulcer recurrence from 18.7 months in noncompliant patients to 53.0 months in compliant patients. [8] Because the higher the compression pressure applied, the lower is the recurrence rate, the highest pressure tolerated by the patients is recommended. [9] Class III pressure garments are less well-tolerated, but when tolerated, the recurrence rate is lower than with Class II garments.

The prevention of recurrence of other common leg ulcers also merits a mention. In patients with ulceration due to severe arterial compromise, healing rates are unlikely to exceed 50% despite an aggressive policy of revascularization as these patients are often unfit or unsuitable for arterial intervention.[10] In the neuropathic ulcer, especially in the diabetics who have been medically optimized and continue to experience peripheral neuropathy symptoms in the lower extremities, nerve decompression may prevent further nerve fiber deterioration.[11] This may enhance ulcer healing and promote the reduction in ulcer recurrence. Other ancillary measures that may help to some extent are calf exercises, limb elevation, nutritional supplementation, cessation of smoking, weight reduction and change of lifestyle, use of veno-active drugs, and improvement of psychosocial well-being. The patient with a leg ulcer indeed needs strong motivation and quality help from the clinician and health-care professionals to be able to prevent ulcer recurrence.

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## **REFERENCES**

- Shenoy MM. Prevention of venous leg ulcer recurrence. Indian Dermatol Online J 2014;5:386-9.
- Marston WA, Carlin RE, Passman MA, Farber MA, Keagy BA. Healing rates and cost efficacy of outpatient compression treatment for leg ulcers associated with venous insufficiency. J Vasc Surg 1999;30:491-8.
- Vowden KR, Vowden P. Preventing venous ulcer recurrence: A review. Int Wound J 2006;3:11-21.
- Barwell JR, Davies CE, Deacon J, Harvey K, Minor J, Sassano A, et al. Comparison of surgery and compression with compression alone in chronic venous ulceration (ESCHAR study): Randomised controlled trial. Lancet 2004;363:1854-9.
- Gohel MS, Barwell JR, Taylor M, Chant T, Foy C, Earnshaw JJ, et al. Long term results of compression therapy alone versus compression

- plus surgery in chronic venous ulceration (ESCHAR): Randomised controlled trial. BMJ 2007;335:83.
- Abisi S, Tan J, Burnand KG. Excision and meshed skin grafting for leg ulcers resistant to compression therapy. Br J Surg 2007;94:194-7.
- Darvall KA, Sam RC, Adam DJ, Silverman SH, Fegan CD, Bradbury AW. Higher prevalence of thrombophilia in patients with varicose veins and venous ulcers than controls. J Vasc Surg 2009;49:1235-41.
- Markova A, Mostow EN. US skin disease assessment: Ulcer and wound care. Dermatol Clin 2012;30:107-11, ix.
- Mosti G. Compression and venous surgery for venous leg ulcers. Clin Plast Surg 2012;39:269-80.
- Humphreys ML, Stewart AH, Gohel MS, Taylor M, Whyman MR, Poskitt KR. Management of mixed arterial and venous leg ulcers. Br J Surg 2007;94:1104-7.
- Ducic I, Felder JM 3<sup>rd</sup>, Iorio ML. The role of peripheral nerve surgery in diabetic limb salvage. Plast Reconstr Surg 2011;127 Suppl 1:2598-6.

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