Q | What is the best initial treatment for venous stasis ulcers?

EVIDENCE-BASED ANSWER

THE MAINSTAY OF INITIAL TREATMENT of venous stasis ulcers is compression therapy (strength of recommendation [SOR]: A, systematic review of randomized controlled trials [RCTs]). Multicomponent compression therapy is slightly superior to single-component therapy (SOR: B, systematic review of RCTs with inconsistent results).

The various types of dressings available for managing venous stasis ulcers are similarly efficacious (SOR: A, systematic review of RCTs).

Systemic therapies such as aspirin (SOR: B, single RCT) and pentoxifylline (SOR: A, systematic review of RCTs) improve healing rates whereas antibiotics don’t (SOR: A, systematic review of RCTs).

Cadexomer iodine, a topical antiseptic, improves ulcer healing but may not be feasible in most clinical settings because of the frequent dressing changes required (SOR: B, single RCT).

Evidence summary

A systematic review found 7 RCTs with a total of 686 subjects that compared compression with no compression for venous leg ulcers. Although the outcome data were too heterogeneous for a meta-analysis, the 4 studies in which statistical analysis was possible showed that compression healed venous leg ulcers faster than no compression (relative risk [RR] range=1.2 to 4 in favor of compression), as detailed in the TABLE. Notably, only 2 of the studies achieved statistical significance ($P<.05$).

Two other studies in this review, with 20 and 245 patients, compared 4-component with single-component compression. In the smaller study, multicomponent compression produced more completely healed ulcers at 12 weeks, but the difference wasn’t statistically significant.

In the larger study, nonhealing at 24 weeks was much less common among patients treated with multicomponent compression than single-component therapy (RR=0.74; 95% confidence interval [CI], 0.59–0.92; number needed to treat [NNT]=5.7; $P=.009$), and median time to healing was shorter (78 vs 168 days; statistical significance not reported).

The reviewers concluded that compression increases ulcer healing rates compared with no compression and that multicomponent systems are more effective than single-component systems.

Similar results, different costs among dressing types

A systematic review and meta-analysis of 42 RCTs that included 3001 patients compared multiple dressing types, including hydrocolloid, foam, alginate, and low-adherent dressings, used beneath compression. The study found no significant differences in healing rates among the dressings, although costs varied widely.

Systemic therapy:
Aspirin and pentoxifylline help
Systemic or topical treatments are an alter-
Systemic aspirin and pentoxifylline improve healing rates, but systemic antibiotics don’t.

Topical cadexomer iodine: Effective, but is it feasible?

One of the 5 reviewed RCTs (60 patients) found that topical cadexomer iodine produced more frequent healing than standard care at 6 weeks (NNT=3; 95% CI, 2-19). However, the cadexomer regimen involved daily dressing changes, which might limit feasibility in many clinical settings.

Other interventions to consider for venous ulcers include hyperbaric oxygen and venous surgery.

References