In patients with chronic venous leg ulceration, is superficial venous surgery plus compression more effective than compression alone for improving healing and reducing recurrence of ulcers?

TREATMENT

Superficial venous surgery plus compression reduced ulcer recurrence in chronic venous leg ulceration


In patients with chronic venous leg ulceration, superficial venous surgery plus compression was more effective than compression alone for reducing 12 month ulcer recurrence rates.

METHODS

Design: randomised controlled trial.

Allocation: concealed.

Blinding: unblinded.

Follow up period: median follow up was 14 months (range 10–23 mo), comprising time from randomisation to healing (for patients with open ulcers) and from healing to recurrence or 12 months.

Setting: 3 leg ulcer clinics in Gloucestershire and north Bristol, UK.

Patients: 500 patients (38% women) who had open venous ulceration (68% of patients) or recently healed (<6 mo) venous ulceration (32% of patients) between the knee and malleoli for >4 weeks, ankle brachial pressure index >0.85, and superficial venous reflux alone or mixed superficial and deep venous reflux on duplex imaging. Exclusion criteria included occluded deep veins and inability to give informed consent.

Intervention: surgery plus compression (surgery group, n = 242) or compression alone (n = 258). In both groups, compression comprised weekly multilayer compression bandaging of open ulcers until the ulcer healed. Patients with healed ulcers (both at randomisation and during follow up) were provided with Class 2 elastic stockings.

Outcomes: 24 week ulcer healing rates (among 341 patients with open ulcers) and 12 month ulcer recurrence rates (among 428 patients with healed ulcers).

Patient follow up: 92% (analysis of relevant healing and recurrence rates was by intention to treat).

MAIN RESULTS

The 12 month ulcer recurrence rate was lower in the surgery group than in the compression alone group (table). The groups did not differ for 24 week ulcer healing rates (65% vs 68%, p = 0.85).

CONCLUSION

In patients with chronic venous leg ulceration, superficial venous surgery plus compression was more effective than compression alone for reducing 12 month ulcer recurrence rates.

Supplementary Table 1: Comparison of surgery and compression with compression alone in chronic venous leg ulceration

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Surgery (%)</th>
<th>Compression alone (%)</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)†</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 month recurrence rates</td>
<td>12%</td>
<td>28%</td>
<td>60% (40 to 73)</td>
<td>6 (5 to 9)</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; RRR, NNT, and CI calculated from hazard ratio in article.
†NNT refers to number of legs needed to treat.
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