THERAPEUTICS

Review: elastic compression stockings prevent post-thrombotic syndrome in patients with deep venous thrombosis


Clinical impact ratings GP/FP/Primary care ★★★★★★ IM/Ambulatory care ★★★★★☆ Internal medicine ★★★★★☆ Geriatrics ★★★★★★ Haematology ★★★★★★

In patients with deep venous thrombosis (DVT), are non-pharmaceutical interventions effective and safe for preventing post-thrombotic syndrome (PTS)?

METHODS:


Study selection and assessment: randomised controlled trials (RCTs) or controlled clinical trials that compared medical elastic stockings (pressure 20–30 mm Hg or 30–40 mm Hg at the ankle) and compression bandages with bed rest, no intervention, or placebo stockings. Studies were assessed for validity and methods using a standard checklist.

Outcomes: occurrence of PTS. Secondary outcomes included complications and adverse effects (pulmonary embolism within 2 wk of treatment, discomfort, pain, swelling, pressure sores, and recurrence of thrombosis).

MAIN RESULTS

4 RCTs (466 patients) met the selection criteria; 3 RCTs (421 patients) were included in the meta-analysis. Patients who received elastic compression stockings had greater reductions in the incidence of any or severe PTS than those who received the control intervention (table). No information was available for complications or adverse effects in these studies. In 1 RCT not in the meta-analysis, patients who received a compression intervention had less pain and swelling than those who received bed rest for 9 days without compression (p<0.05). The groups did not differ for complications or adverse effects (occurrence of new pulmonary embol and regression of thrombus diameter).

CONCLUSIONS

In patients with deep venous thrombosis, elastic compression stockings prevent post-thrombotic syndrome. Safety information was not available for the pooled studies, but 1 study found similar stockings prevent post-thrombotic syndrome. Safety information was not available for the pooled studies, but 1 study found similar

Abstract and commentary also appear in ACP Journal Club.

Elastic compression stockings vs no intervention or placebo stockings (control) for deep venous thrombosis at 2 years*

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Number of studies (number of patients)</th>
<th>Weighted event rates</th>
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<tbody>
<tr>
<td></td>
<td>Stockings Control RRR (95% CI) NNT (CI)</td>
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<tr>
<td>Any PTS</td>
<td>3 (421) 20% 43% 54% (38 to 66) 5 (4 to 7)</td>
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<tr>
<td>Severe PTS</td>
<td>3 (421) 7% 15% 56% (20 to 75) 13 (8 to 34)</td>
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</tbody>
</table>

*PTS = post-thrombotic syndrome. Other abbreviations defined in glossary; weighted event rates, RRR, NNT, and CI calculated from data in article using a fixed effects model.
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Evid Based Med 2004 9: 109
doi: 10.1136/ebm.9.4.109

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