Therapeutic knee taping improved pain and disability in osteoarthritis of the knee


Clinical impact ratings GP/FP/Primary care ***** Rheumatology ***

In patients with osteoarthritis (OA) of the knee, does therapeutic knee taping (TKT) reduce pain and disability?

METHODS

Design: randomised controlled trial.

Allocation: not concealed. *

Blinding: patients and outcome assessors. *

Follow up period: 3 weeks each of intervention and follow up.

Setting: metropolitan private practices and a university laboratory in Melbourne, Victoria, Australia.

Patients: 87 patients (mean age 69 y, 66% women) who met the American College of Rheumatology criteria for OA of the knee. Exclusion criteria included allergy to tape, history of joint replacement, body mass index >38 kg/m², and rheumatoid arthritis.

Intervention: 29 patients each were allocated to TKT, control tape, or no tape. The tape was worn for 3 weeks and reapplied weekly. TKT provided medial glide, medial tilt, and anterior-posterior tilt to the patella. Control tape aimed to provide sensory input only. Patients in the no tape group received no intervention.

Outcomes: change from baseline in pain (0–10 cm visual analogue scale) assessed at 3 and 6 weeks, and patient perceived rating of change (1–5 Likert scale) assessed at 3 weeks. Patients with a Likert scale score of 4 or 5 were classified as improved.

Patient follow up: follow up was 99%.

*See glossary

MAIN RESULTS

Analysis was by intention to treat. The table shows the 3-week results. At 6 weeks, reduction in pain on worst activity was greater in the TKT group than in the no tape or control group (p<0.05 for both), whereas reduction in pain on movement was only greater in the TKT group than in the no tape group (p<0.05).

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Therapeutic knee taping (TKT) v control tape (CTP) or no tape (NTP) in osteoarthritis of the knee at 3 weeks*

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Comparisons</th>
<th>Mean scores</th>
<th>Difference between groups (95% CI)†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change from baseline in pain on movement (VAS)</td>
<td>TKT v NTP</td>
<td>–2.1 ± 0.1</td>
<td>2.1 (1.2 to 3.0)</td>
</tr>
<tr>
<td>Change from baseline in pain on worst activity (VAS)</td>
<td>TKT v CTP</td>
<td>–2.1 ± 0.7</td>
<td>1.3 (0.3 to 2.4)</td>
</tr>
<tr>
<td>Change from baseline in pain on worst activity (VAS)</td>
<td>TKT v CTP</td>
<td>–2.5 ± 0.4</td>
<td>2.0 (1.0 to 3.1)</td>
</tr>
<tr>
<td></td>
<td>TKT v CTP</td>
<td>–2.5 ± 1.1</td>
<td>1.5 (0.3 to 2.7)</td>
</tr>
<tr>
<td>Event rates</td>
<td>RBI (CI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of patients improved</td>
<td>TKT v NTP</td>
<td>72% ± 10%</td>
<td>600% (164 to 1960)</td>
</tr>
<tr>
<td></td>
<td>TKT v CTP</td>
<td>72% ± 48%</td>
<td>50% (–1.7 to 140)</td>
</tr>
</tbody>
</table>

*VAS = 0–10 cm visual analogue scale. Other abbreviations defined in glossary; RBI, NNT, and CI calculated from data in article.

†Significant differences favour TKT (round off errors increase or decrease difference by 0.1).
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Evid Based Med 2004 9: 18
doi: 10.1136/ebm.9.1.18

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