

CAT

Tennis elbow braces are only effective for short-term improvement of inconvenience during daily activities

Clinical Bottom Line(s):

1. Brace treatment may be useful as initial therapy only.
2. Combination of rehabilitation program (ultrasound, friction massage and exercise) with brace has no added benefit over rehabilitation alone.

Citations(s):

Struijs, PA, Kerkhoffs, GM, Assendelft, WJ and Van Dijk, CN. Conservative Treatment of Lateral Epicondylitis. Brace Versus Physical Therapy or a Combination of Both-A Randomized Clinical Trial. Am J Sports Med 2004; 32(2): 462-469

Three/four part clinical question.

In adults with clinically diagnosed lateral epicondylalgia, would an elbow brace be more effective as compared to standard rehabilitation in order to decrease pain and disability?

The study:

Was the assignment of patients to treatments randomised?	Yes.
Was the randomisation list concealed?	Can't Tell.
Was follow-up of patients sufficiently long and complete?	Yes. (52 weeks)
Were all patients analysed in the groups to which they were randomised?	Yes.
Were patients and clinicians kept "blind" to treatment?	No.
Were the groups treated equally, apart from the experimental treatment?	Yes.
Were the groups similar at the start of the trial?	Yes.

The study patients:

Male and female subjects (N=180, mean age 45 years) with pain on the lateral side of the elbow, which was aggravated with both pressure on the lateral epicondyle of the humerus and resisted dorsiflexion of the wrist.

Treatment Group 1 (n=56): Physical Therapy: 9 sessions over 6 week period consisting of: 7.5 minutes of pulsed ultrasound, 5-10 minutes of friction massage and a 4-step strengthening and stretching program. Exercise program was performed at each physical therapy clinic session and at home.

Treatment Group 2 (n=68): Brace only. Epipoint brace worn continuously during day time for 6 week period, following a standard protocol for use and application.

Treatment Group 3 (n=56): Combination of brace and rehabilitation protocols.

The evidence:

Only statistically significant outcomes reported (short-term between 'physical therapy' and 'brace only' groups).

Outcome	Time to Outcome	DV CER or Effect Size Index	DV EER Effect Size Index	RRR (option)	ARR (option)	NNT (option)
(1) Pain importance	6 weeks	1.37	0.87			
(2) Pain (PFFQ)	6 weeks	1.13	0.55			
(3) ↓ inconvenience during ADLs	6 weeks	0.59	1.00			
(4) Satisfaction	6 weeks	75%	66%			

For outcomes 1-3: $ES = M_1 - M_2 / S_{pooled}$

Comments:

1. Intermediate (26-weeks) and long term (52 weeks) outcomes were not significantly different between the three groups.
2. The time and financial costs of the rehabilitation sessions were not accounted for and must be considered.

Appraised by: Brad Tragord

Date Appraised: 22 August 2005

Kill or update by: