

# Controlled trial of an elbow support ('Epitrain') in patients with acute painful conditions of the elbow: a pilot study

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## Abstract

A randomized, controlled, parallel-group study was undertaken to assess the clinical efficacy of a new elbow support ('Epitrain') compared with a standard elasticated tubular stockinette support ('Tubigrip') in 35 patients with acute painful elbow disorders. On entry, patients had a clinical examination, including measurement of the range of active and passive movement of the affected joint, and were allocated to one or other treatment group (19 to 'Epitrain', 16 to control). All patients were allowed to take 1g paracetamol up to 4-times daily if necessary for the control of pain. Assessments were made daily by patients, using visual analogue scales, of their pain levels at rest, at night and on activity, and of the limitation of their activity. Details were also recorded of their ability to work normally. At the end of the 14-day study period, patients were re-examined by the doctor and were asked for an overall assessment of their response to treatment. Analysis of data from the daily diary records showed progressive, significant reductions to zero in scores for all the pain and the activity criteria in the 'Epitrain' group during the first 7 to 9 days; thereafter, this improvement was maintained. In contrast, the reductions in symptom scores in the control group were much smaller, confined to the first 3 to 5 days, with little further improvement. The median times taken for reduction of symptom scores to 10% of initial levels were at least 14 days for all four visual analogue scale assessments in the control group. In contrast, a 90% reduction occurred in the 'Epitrain' group in a median time of 6.5 days for rest pain (p less than 0.01), 7 days for night pain (p less than 0.01), 8 days for pain on activity (p less than 0.01) and 9 days for limitation of activity (p less than 0.02). The mean range of active joint movement improved from 80 degrees to 141 degrees in the 'Epitrain' group, but only from 83 degrees to 98 degrees in the control group (p less than 0.0002). Similar results were obtained for passive joint movement. Overall, 13 (68%) of the 19 patients in the 'Epitrain' group were described as 'cured' as compared with 2 (13%) of the 16 patients in the control group (p less than 0.02). (ABSTRACT TRUNCATED AT 400 WORDS)