

Geutgens GG, Langstaff RJ, et al. Medial epicondylectomy or ulnar-nerve transposition for ulnar neuropathy at the elbow? JBJs Br 1996;76B:777-779.

Design: Randomized clinical trial

Brief summary of findings:

- 43 patients, 47 elbows (mean age 58) operated on for ulnar neuropathy at the elbow in Nottingham, England
- Eligibility criteria included clinical evidence of ulnar nerve lesion at the elbow, conduction slowing of the nerve, persistent symptoms for 3 months, no rheumatoid disease and no valgus deformity of 5° or more
- Elbows were randomized to epicondylectomy (n=25) or anterior transposition (n=22) by two surgeons who did both operations
- Blinded follow-up evaluations included muscle strength (scored 0 to 5), pain (scored 0 to 5), muscle atrophy, and sensation (light touch and 2-point discrimination); follow-up review was done at 2 weeks, 3 months, and 12 months
- Additional blinded assessments included grip strength, stiffness, range of motion, and tenderness; patients were also asked whether they would have the same operation again
- Most outcome variables performed by clinical examination (including grip strength) did not differ significantly between groups, but some of the patient reports differed, with medial epicondylectomy favored over ulnar nerve transposition
- The patients' opinion about the success of the operation showed 12/25 epicondylectomy patients calling themselves "cured," but only 6/22 nerve transposition patients calling themselves "cured"
- 23/25 patients said "yes" when asked if they would have the same operation again; but only 15/22 nerve transposition patients answered "yes"

Authors' conclusions:

- Removal of the medial epicondyle did not appear to weaken the flexors which arise from it, and it appears to be more satisfactory than transposition
- Transposition of the ulnar nerve may lead to nerve tethering, which restricts nerve gliding, and to devascularization of part of the nerve

Comments:

- Although mean follow-up time was reported as 4.5 years, the timing of the outcomes in Table I and Table II is not reported, nor is it clear whether all patients had these outcomes measured at approximately the same time
- Medial epicondylectomy is compared with anterior transposition, but it is not clear whether this is anterior subcutaneous or anterior intramuscular transposition
- Grip strength in Table I is reported only postoperatively (at an undetermined time after the operation), but there is enough data on muscle power in Table II to show that both groups did gain muscle power after surgery

- No description of postop care, co-interventions, or rehabilitation therapy is given

Assessment: Inadequate for evidence statement about comparison of the two operations (timing of follow-up assessment was not clear; which anterior transposition procedure was done is unclear; lack of description of other interventions makes the results difficult to apply to clinical practice)