Aims

- Local corticosteroid injection (LCI) improves symptoms in the injected hand of carpal tunnel syndrome (CTS).
- Whether it affects the non-injected hand is unknown.
- This study assesses the effect of unilateral LCI on the non-injected hand in mild to moderate bilateral CTS.

Method and material

- Sixty patients with bilateral CTS were recruited from December 2021 to August 2024.
- They received a unilateral injection of 1ml (40 mg) depo-methylprednisolone with 0.5ml (10 mg) lidocaine in the more severely affected or dominant hand if symptoms were comparable.
- The primary outcome was change in SSS of the non-injected hand at 1 and 3 months.
- Secondary outcomes were comparison of response rates and change in the median nerve electrophysiology at 3 months in both the injected and the non-injected hands. A significant response was defined as $\geq$0.8 reduction in SSS.

Results and conclusion

Results:

- The median age of patients was 45 (range 20–81) years.
- Follow-up data were missing for 7 patients at 1 month and 15 at 3 months.
- Mean SSS change in non-injected hands was −0.89 (SD 0.67) at 1 month and −0.77 (SD 0.64) at 3 months, compared with −1.25 (SD 0.64) and −1.23 (SD 0.72) in injected hands.
- Taking patients lost to follow-up as treatment failures, response rates at 3 months were 65% in injected hands and 57% in non-injected hands.
- Median nerve conduction improved bilaterally at 3 months.

Conclusion: Unilateral LCI in bilateral CTS results in significant symptomatic improvement in the contralateral hand, underscoring the need to routinely assess non-injected hand in treatment assessment.