

## #384 - Systematic Review

### Management Of De Quervain's Tenosynovitis: A Living Systematic Review And Network Meta-Analysis Of Randomised Studies

Orthopaedics / Wrist & Hand / Conservative Treatment

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#### Background

Definitive guidelines for the management of de Quervain's tenosynovitis (dQt) do not exist.

#### Objectives

The aim of our study was to present the highest quality evidence on the management of dQt and perform a comparison of interventions to guide clinical practice and future guidelines.

#### Study Design & Methods

Literature searches were conducted in August 2022 in multiple databases aiming to identify all randomised controlled trials (RCTs) assessing the effectiveness of any intervention for the management of dQt. Pairwise and network meta-analyses were performed for pain (visual analogue scale, VAS) and function (quick disabilities of the arm, shoulder and hand, Q-DASH scale) for short-term (0-12 weeks) and mid-term (13 weeks – 12 months) follow up. Mean difference (MD) and odds ratios (OR) with their 95% confidence intervals (CI) were calculated for the pairwise meta-analyses. The Cochrane Risk of Bias (RoB 2) tool and the GRADE tool were used for risk of bias and certainty of evidence assessment for each outcome.

#### Results

A total of 29 studies (1611 patients) were included in our systematic review, of which 19 participated in quantitative analyses. From the pairwise meta-analyses, based on evidence of moderate certainty, adding thumb spica immobilisation for 3-4 weeks to a corticosteroid injection (CSI) is associated with statistically but not clinically significant short- and mid-term functional benefits [MD q-DASH 10.5 points CI (6.8, 14.1) and 9.4 points CI (7.0, 11.9)]. This was also associated with statistically but not clinically significant short- and mid-term pain relief benefits [MD VAS 1.3 points CI (0.4, 2.1) and 1.2 points CI (0.3, 2.2) respectively], and, additionally, ultrasound-guided CSI was superior to conventional CSI for short-term pain at clinical but not statistical significance [MD VAS 2.1 points CI (-0.5, 4.6)], however these results were based on very low certainty of evidence. For open surgical release, transverse skin incision was associated with a greater incidence of total complications and nerve injury compared to longitudinal incision [OR 6.8 CI (0.9, 48.1) and OR 7.7 CI (0.9, 64.0)] and but these did not reach statistical significance. In the network meta-analysis for pain, interventions that included ultrasound-guided CSI ranked at the top for pain. CSI with thumb spica immobilisation had the highest probability to be the most effective intervention for function. Placebo injection (normal saline) and thumb spica immobilisation alone (splint or cast) were shown to be the least effective interventions.

**Conclusions**

Until high-quality evidence suggests otherwise, we recommend the use of CSI, ideally under ultrasound guidance, with thumb spica immobilisation as first-line treatment for dQt patients. Surgery should be used only where non-surgical management fails.