**Ashraf M, Devadoss V. Systematic review and meta-analysis on steroid injection therapy for de Quervain's tenosynovitis in adults. Eur J Orthop Surg Traumatol. 2014;24(2);149-57.**

PMID: 23412309

Design: meta-analysis of randomized clinical trials

Purpose of study: to compare the effectiveness of steroid injection versus splinting without steroid injection in patients with de Quervain’s disease (dQD)

PICOS:  
 - Patient population: adults with dQD who present with pain at the radial aspect of the wrist on extension and abduction of the thumb against resistance when symptoms are not caused by trauma

* Interventions: Injection therapy with a corticosteroid
* Comparison: treatment with casting or splinting without steroid
* Outcomes: primary outcome was resolution of tenderness over the first dorsal compartment of the wrist
  + Secondary measures were difficulties in carrying out activities of daily living
* Study types: only randomized controlled trials were considered

Study selection:

* Literature search conducted in December 2011 included MEDLINE, EMBASE, CINAHL, AMED, PSYCHINFO, and the Cochrane Library
* Two authors examined titles and abstracts to identify relevant articles, who resolved disagreements about article selection through mutual discussion and consultation with a third author when needed
* 14 studies were selected for further scrutiny, and 12 were rejected for a variety of reasons, most commonly for lacking a control group, for not being randomized, or for having no comparison of interest
* 2 studies were selected for inclusion in the analysis, but both were rated as low quality due to inadequate randomization, unclear allocation concealment, possibility of selective outcome reporting, and lack of blinding of outcome assessment

Results:

* One of the two included studies enrolled 18 patients with “de Quervain’s disease of pregnancy and lactation” to either steroid injection (n=9) or splinting (n=9) and found that all 9 patients in the steroid group had complete relief but the splinted group had relief only when wearing the splint
* The other study enrolled 73 patients to either steroid injection followed by one month of a thumb spica cast (n=37) or to a thumb spica cast alone (n=36), and reported overall success in 32/37 patients in the first group and 13/36 patients in the second group

Authors’ conclusions:

* This systematic review showed an overall effect favoring steroid injection in comparison with splint therapy
* However, these results were based on two low-quality studies, and more research in this field is warranted to establish the effectiveness of steroid injection for de Quervain’s disease

Comments:

* The chief difficulty with asserting that there is good evidence of the effectiveness of steroid injection for dQD is the paucity of acceptable quality randomized trials
  + The authors’ decision to draw conclusions on the basis of unsatisfactory clinical trials is of dubious merit
* The nonrandomized studies of this intervention have shown varying success rates, and the practice of steroid injection has become accepted practice on the basis of observational studies
* The most relevant finding of this systematic review, which appears to have conducted a satisfactory literature search and to have done an adequate quality assessment of the included trials, is the paucity of well-designed studies of an intervention which has gained such wide acceptance

Assessment:

An adequate systematic review and meta-analysis which nevertheless is inadequate to support an evidence statement that steroid injection is more effective than splinting alone in the setting of de Quervain’s tenosynovitis