Getting Evidence into Clinical Practice:
Musculoskeletal Research Facilitation Group (CAT Group)
Date: September 2016

Specific Question:

Is a clinically guided steroid injection as effective in terms of pain relief and improved function as an ultrasound guided injection for patient with first CMC joint osteoarthritis (OA)

Clinical bottom line

Only one small randomised controlled study answered our specific question. This evidence should be treated with caution as although it included 148 patients, only a small number had CMC OA (5% i.e. 7 patients).

It suggests that a clinician guided injection is more effective in reducing pain compared to an ultrasound guided injection for patients with rheumatoid and osteoarthritis (including CMC joint OA).

Patients should be offered a clinician guided CMC joint injection as a first step rather than a referral onto for ultrasound guided injection.

Why is this important?

CMC joint osteoarthritis is a common disabling condition. It is treated mainly in primary care using a stepped care approach. Patient may be offered treatment such as analgesia, capsaicin topical cream, steroid injection therapy or surgery in severe cases.

In clinical services, variation in practice exists. Some patient receive clinician guided injection (also known as clinician guided injections), whilst other patients have the injection delivered using an ultrasound scan to guide needle placement. Locally, patient would have a long wait of at least 8 weeks to receive the injection using ultrasound guidance, whereas clinician guided can be given on the same day as assessment (as long as there are no contraindications). Ultrasound guidance requires additional visits for the patient, additional cost in terms of training staff and additional equipment.

It would be important to gain an answer to this question so we can offer the best and most timely care for our patients

Search timeframe 2006-2016

CAT Lead: Kay Stevenson and Kirsty Thomson
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Date CAT completed:
Date CAT to be reviewed: September 2018

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Inclusion Criteria

	Description	Search terms
Population and Setting	Adults with thumb pain, with pain at base of thumb, Osteoarthritis of carpometacarpal (CMC) joint of thumb Primary or secondary care	Adults 18-no upper age limit thumb pain Osteoarthritis, 1st Carpometacarpal joint
Intervention or Exposure	Clinically guided 1st CMC joint steroid injection (with or without local anaesthetic)	Clinically guided steroid injection, blind steroid injection Local anaesthetic Injection Blind Corticosteroid Landmarked guided
Comparison, if any	Ultrasound guided intra-articular 1st CMC joint steroid injection (with or without local anaesthetic)	Ultrasound guided 1st Carpo meta carpal joint joint steroid injection, USG intra-articular steroid injection Local anaesthetic Injection Image guided Sonographic guided Intra-articular Corticosteroid Sonographic
Outcomes of interest	Pain Function	
Types of studies	SR RCT	

Routine Databases Searched

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database,NICE,HTA,Bandolier,The,CochraneLibrary,Medline,Cinahl,Embase,PsycInfo, Professional websites. Joanna Briggs Institute, Web of science, Sports discus and Pub med

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Date of search- August 2016

Results of the search

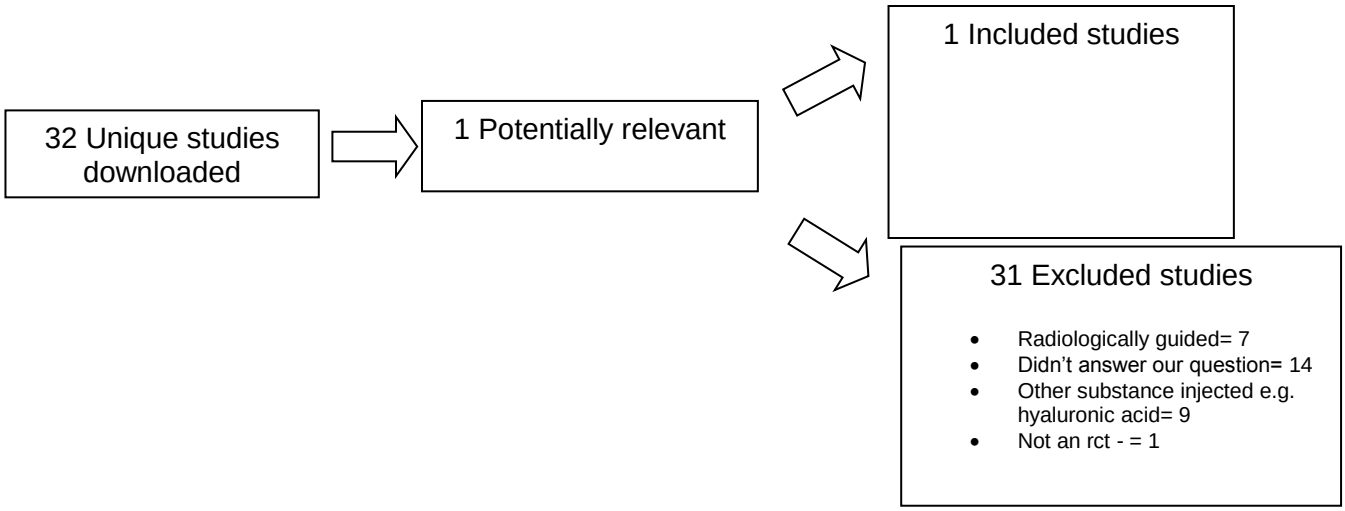

Table 1- Detail of included study

First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Sibbitt RCT 2009	Undertaken in Finland, 148 subjects 100 had Rheumatoid arthritis (RA) 48 Osteoarthritis (OA) 95% large joints 5% small joints (n=7 patients)	Randomised into 2 groups 1.Injection with palpation 2. Ultrasound guided needle placement Outcome = Visual analogue scale. Taken at baseline, during procedure and after 2 weeks	Palpation guided injection resulted in significant reduction in pain at 2 weeks, responder rate (those who respond to treatment) was high at 72% US guided resulted in less procedural pain	Clear inclusion and exclusion No detail on randomisation process Good description of intervention Only 2 week follow up No measure of function was included

Summary

The Finish study included 148 joints from patients with Rheumatoid and Osteoarthritis. Large and small joint were included, but only 5 % were classed as small joints (including CMC joint). The follow up time was very short given the chronic nature of this condition.

Implications for Practice/research

It would be appropriate in light of this evidence to offer patients a clinician guided injection into the CMC joint for pain relief. There is good quality evidence to underpin the use of steroid injections and they are recommended for improving pain and function

There is surprisingly little evidence to directly compare the mechanism of delivering the steroid into the CMC joint. This would seem to be an appropriate area for further high quality research to guide practice

What would you tweet? (140 characters)

Surprisingly there is no good quality evidence to say US steroid guided is better than clinician guided injection for CMC joint OA- so try clinician guided first

References

Sibbitt WL, Peisajovich A, Michael AA, Park KS Sibbitt RR, Band PA and Bankhurst AD Does sonographic needle guidance affect the clinical outcome of intra articular injections The Journal pf Rheumatology 2009 36;9, doi 10.3899/jrheum.090013

Joanna Briggs link:
http://ovidsp.tx.ovid.com/sp-3.21.1b/ovidweb.cgi?&S=JEOCFPPONCDDADDLNCIKFCDCNIHOAA00&Link+Set=S.sh.21%7c5%7csl_190

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