Getting Evidence into Clinical Practice:
Musculoskeletal Research Facilitation Group (CAT Group)
Virtual CAT 29/5/20

Specific Question:
In an adult population with trigger finger or thumb, is a clinically guided steroid injection as effective as surgical release in resolving symptoms of triggering?

Clinical bottom line

Moderate quality evidence suggests that the clinical use of steroid injection can give an effective outcome for pain relief and resolution of triggering at 6 months post injection, with relatively low clinical risk, but injection is not as effective as surgical release.

Why is this important?
Trigger finger is a condition treated within the Musculoskeletal Interface Service (MIS) and clinical algorithms advise injection management. There is little guidance available on injection management and two previous CAT question have compared splinting with exercise (2012) and splinting with usual care (2016) but neither looked at injections compared with surgery. An audit was undertaken to review the management of this patient group within the MIS service. Trigger finger/thumb accounted for 7.25% of all upper limb referrals in a 6-month period of which 74% were managed solely within the MIS with injections. Therefore, as the audit identified injection as a useful treatment for triggering, the CAT question was raised to review evidence to support this, to see if the clinic is offering best clinical care.

Search timeframe (e.g. 2006-2016)
2015 to 2020

Inclusion Criteria

	Description	Search terms
Population and Setting	All adults over aged 18 with trigger finger or thumb	Adults, trigger finger, trigger thumb, stenosing tenosynovitis
Intervention or Exposure	Steroid injection with or without local anaesthetic	Steroid injection, Primary care, secondary care, clinically guided, blinded, local anaesthetic
Comparison, if any	Surgical intervention	Surgical release, decompression
Outcomes of interest	Resolution of triggering	No more triggering, resolution, pain, recurrent episodes
Types of studies	RCTs Systematic reviews	RCTs and systematic reviews

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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

Date of search- 24/5/20

Results of the search

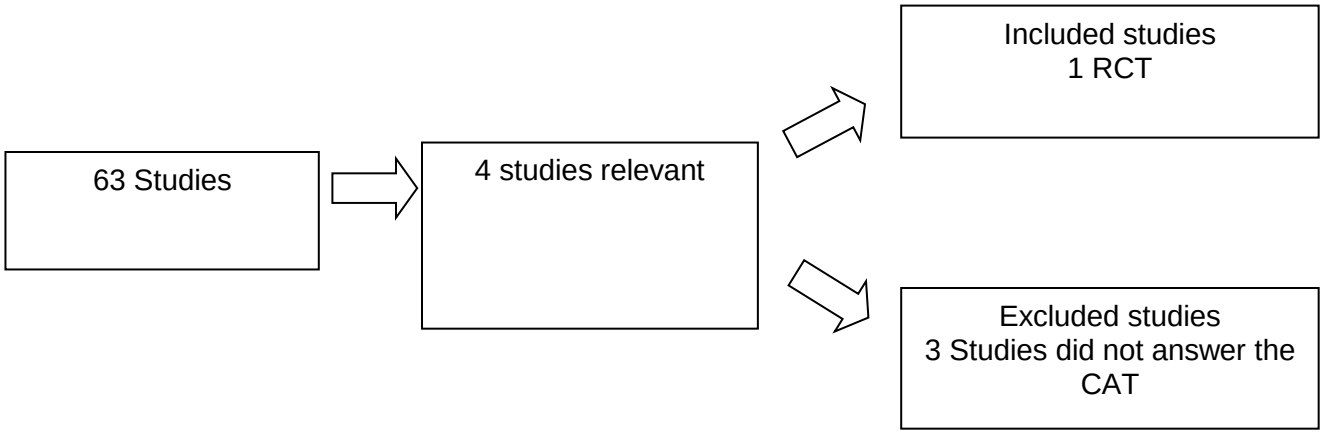

Table 1- Detail of included studies

First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Sato ES 2011 RCT	Included all adults over 15 years of age with trigger finger or thumb. Undertaken in Sao Paulo, Brazil. In a secondary	The study compared three treatment arms of patients, corticosteroid injection, percutaneous release and open release.	The study randomised the patients into three arms, and each patient was followed up at 1, 2, 4 and 6 months. Outcome methods recorded primary outcomes cured of triggering or relapse and secondary outcomes of pain, movement measured using a Total active motion method.	The study was deemed as moderate evidence, power calculations were used to deem a population size which was met. Inclusion and exclusion criteria

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	care setting Orthopaedic Hospital.		The trigger cure rate for patients in the injection method group was 57%, and wherever necessary, two injections were administered, which increased the cure rate to 86%. For the percutaneous and open release methods, remission of the trigger was achieved in all cases.	and treatment methods similar to that of the UK. There is a potential for bias which is not identified, alongside some missing data as to the methodological process No clear evidence of blinding No consent procedures No reference to any participant drop out and reasons why

Summary

The randomised controlled trial by Sato et al was reviewed as it answered the clinical question. The methodology had similarities between processes and pathways used in our MIS Inclusion and exclusion criteria were clear and could be replicated. The technique of injection and surgery were similar to that used in our clinical practice. Long term follow up and useful outcome measures were used. The trial was deemed to provide moderate quality evidence with some positive and negative features.

The trial concluded that the levels of effectiveness of open surgical and percutaneous methods were superior to the conservative method of using corticosteroids based on the cure and reappearance rates of the trigger. However it also identified that corticosteroid injection should be recommended as a first line of treatment as it was shown to be effective at 6 months post intervention and has low clinical risk.

Implications for Practice/research

This trial has not shown any need for a change to current clinical practice within the MIS as results suggest injections are effective as a first line treatment. With the absence of other trials further research addressing the limitations identified would be beneficial.

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What would you tweet? (140 characters)
First virtual CAT completed. Steroid injection for trigger finger can give an effective outcome for pain relief and resolution of triggering at 6 months post injection.

References

Sato E, Gomes dos Santos JB, Belloti JC, Albertoni WM and Faloppa F 2011 Treatment of trigger finger: randomised clinical trial comparing the methods of corticosteroid injection, percutaneous release and open surgery. Rheumatology 51:93-99

Further reading

Fiorini HJ, Tamaoki MJ, Lenza M, Gomes de Santos JB, FAloppa F and Belloti JC 2018 Surgery for trigger finger (review). *Cochrane Database of Systematic Reviews, Issue 2, Art No: CD009860*

Shiwei Ma, Chunbo Wang, Jiang Li, Zhiyu Zhang, Yao Yu ans Feng Lv 2019 Efficacy of corticosteroid injection for treatment of trigger finger: a meta-analysis of randomised control trials. Journal of Investigative Surgery 32:5, 433-441

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