

CAHE JC Critically Appraised Article Summary

Journal Club Details

Date of submission	2008 September
Journal Club location	Southern Cross Care
JC Facilitator	Jane Campbell

Clinical Scenario

Which of the different management techniques for Dupuytren's contracture has the best evidence for effectiveness?

Review Question/PICO/PACO

- P People diagnosed with Dupuytren's contracture
- I Splinting, surgery, no intervention, stretching, splinting following surgery
- C No intervention or any of the above interventions
- O Function, range of motion

Article/Paper

Larson D, Jerosch-Herold C. Clinical effectiveness of post-operative splinting after surgical release of Dupuytren's contracture: a systematic review. *BMC Musculoskeletal Disorders* 2008; 9:104.

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Article Methodology:	Systematic Review
Returned JC on:	16 September 2008
By CAHE staff member:	Lucylynn Lizarondo

Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>The review has a clearly focused question.</p> <p><i>Population:</i> Studies that involved participants with Dupuytren's contracture who received static or dynamic splints for at least 6 weeks after surgical release</p> <p><i>Intervention:</i> Studies that reported the use of static or dynamic splints worn day and/or night time for at least 6 weeks after surgery</p> <p><i>Outcomes:</i> Studies reporting at least one of the following outcomes: individual joint or composite finger range of motion, hand function</p>
2	✓			<p>The initial focus of this review was to include randomised or non-randomised controlled studies as the objective was to look at the evidence for effectiveness. But because the clinical trials on this topic (PICO) were limited, it was decided that observational as well as retrospective case series would also be included in the review. These study designs, whilst they belong in the lower levels of evidence, can still provide information about the efficacy of a particular intervention.</p> <p>Is it worth continuing? YES</p>
3	✓			<p>The following electronic databases were searched: Medline, AMED, CINAHL, and EMBASE. The references for each study which met the inclusion criteria were also scanned to identify any further studies not retrieved during the initial search. Manual search was done on Journal of Hand Surgery, Journal of Hand Therapy and British Journal of Hand Therapy.</p>
4	✓			<p>Two independent reviewers appraised the included papers using the guidelines evaluating the quality of intervention studies developed by McDermid. In cases of disagreement, the reviewers discussed the article until consensus was reached.</p>
5				<p>The results of the different studies were not pooled in meta-analysis due to the heterogeneity of interventions (splint type, duration and wearing regimen) and the way outcomes were reported.</p>
6				<p>The results were presented using narrative summary and tables that highlight the findings from the different studies. There were only four studies that investigated the effectiveness of post-operative splints in patients with Dupuytren's contracture. These studies, which are classified lower in the hierarchy of evidence, had poor methodological quality. The quality of the reporting was likewise poor.</p> <p>Bottom line result: There is lack of evidence supporting the effectiveness of post-operative splints on patients with Dupuytren's contracture. Further well-designed clinical trials are required to establish the short term and long term effectiveness of splinting following Dupuytren's contracture.</p>



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Ques No.	Yes	Can't Tell	No	Comments
7				No statistical analysis was done on this review. Hence, it will be difficult to determine precision of the results.
8		✓		Lack of sample size calculation in all of the included studies may limit the extent to which the results may be considered generalisable. The lack of evidence on the magnitude of the effect of post splinting makes it difficult to draw conclusions which may be applied to actual practice.
9		✓		The review tried to cover the most important outcomes. However, the findings from the different studies were mostly limited to joint range of motion.
10	✓			There is not much evidence regarding the effectiveness of splinting to allow definite conclusions to be drawn. Hence, results from this review should not prompt policy or practice change.