

## CAHE *Allied Health News in Review*

### Is Physiotherapy as effective as arthroscopic knee surgery?

#### Article Hypothesis

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“Physical therapy as effective as arthroscopic knee surgery, New Research Finds” was reported in medical news today on the 15th September 2008.

#### The origin of evidence:

This report was based on a single-centered trial conducted by Alexandra Kirkley and colleagues at the Fowler Kennedy Sport Medicine Clinic, University of West Ontario, London, Ontario, Canada. The randomised controlled trial (RCT) was published in the *New England Journal of Medicine*.

#### The objectives of research:

To compare optimised physical and medical therapy alone with arthroscopic treatment in addition to optimised physical and medical therapy.

#### The nature of evidence:

Randomised controlled trial

#### Participants involved in the research:

Patients who participated in the study were adults with idiopathic or secondary osteoarthritis of the knee with grade 2, 3 or 4 radiographic severity, as defined by the modified Kellgren-Lawrence classification. Patients were excluded if they had large meniscal tears.

#### Interventions utilised:

Patients were randomly assigned to receive optimised physical therapy and medical therapy alone (control group) or to receive both optimised physical and medical therapy and arthroscopic treatment. Arthroscopic treatment was performed within 6 weeks after randomisation. Optimised physical therapy and medical therapy was initiated within 7 days after surgery and followed an identical programme in both groups. Physical therapy was provided for 1 hour once a week for 12 consecutive weeks. The patients were asked to perform the exercises twice daily and once on the day of a scheduled physical-therapy session. After the patients had completed 12 weeks of supervised activity, they continued an unsupervised exercise programme at home for the duration of the study.

## Outcome measures:

Primary OM tool:

- Total Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score at 2 year follow up. WOMAC is a validated, self-administered instrument designed to evaluate knee and hip OA.

Secondary OM tool:

- Short form-36 (SF-36) Physical component Summary score – was used to assess quality of life
- MACTAR and ASES are validated questionnaires that assess the symptoms and functional status of patients with osteoarthritis.

## Key findings:

- WOMAC score showed a greater improvement in the treatment group at 3 months postsurgically whereas at 24 months post surgically, the WOMAC scores showed no significant difference between the groups.
- No significant differences were observed between the treatment groups for any of the secondary outcome measures

## Recommendations made by the research study:

- The study failed to show a benefit of arthroscopic surgery for the treatment of osteoarthritis (OA) of the knee.
- The study results question the widespread use of arthroscopic treatment for OA knee.
- Arthroscopic surgery provides no additional benefit to optimized physical and medical therapy for the treatment of OA knee.

## Validity of methodology and reliability of the conclusions:

The study was based on a sound methodology and used validated measurement tools for their outcome assessment. Physical therapy interventions mentioned in the study article were not elaborate enough for clinicians to exactly replicate in a clinical situation. This RCT scored 6/10 on a Pedro score<sup>1</sup>. Due to the nature of the used interventions, the patient or the clinicians were not blinded. The study interventions were reported to be based on sound evidence referenced in their reference section. There was no mention on the co-interventions which still questions the outcome of the randomised trial.

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<sup>1</sup> [http://www.pedro.fhs.usyd.edu.au/scale\\_item.html](http://www.pedro.fhs.usyd.edu.au/scale_item.html)

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