



Clinical Weekly - 169th Edition

#JOURNALTUESDAY - by Abi Peck

Self-managed loaded exercise versus usual Physiotherapy treatment for rotator cuff tendinopathy: a pilot randomised controlled trial

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Questions:

1. Did the trial address a clearly focussed issue?
2. Was the assignment of patients to treatments randomised?
3. Were all of the patients who entered the trial properly accounted for at its conclusion?
4. Were patients, health workers and study personnel 'blind' to treatment?
5. Were the groups similar at the start of the trial?
6. Aside from the experimental intervention, were the groups treated equally?
7. How large was the treatment effect?
8. How precise was the estimate of the treatment effect?
9. Can the results be applied in your context?
10. Were all the clinically important outcomes considered?
11. Are the benefits worth the harms and costs?

Answers:

1. Yes

Self-managed loading vs standard physiotherapy

24 patients – recruited from private setting

X2 outcomes: shoulder pain and disability index + short form 36 (health related quality of life questionnaire)

2. Patients were randomised using a computer generated and given out using opaque envelopes

3. Yes, each patient was accounted for

4. No, physiotherapists, patients and statisticians were aware of which groups patients were in.

5. Similar groups

6. Yes, same follow up, outcomes and randomisation procedure

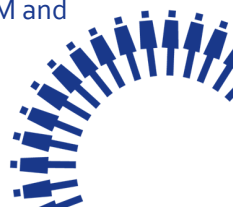
7. Improvements were clinically significant for both groups from baseline to 3 months follow up. There was no real difference between groups from baseline to 3 months.

8. 0.1 difference between groups at 3 months (95% confidence interval). From baseline to 3 months the usual physiotherapy groups scores improved by -19 (95% CI) and the self-managed loading group improved by -23.7 (95% CI).

9. The condition and duration of symptoms will be similar to patient seen in clinic. However, there was a small sample size which reduces the ability to generalise and the selection of private patients may have different expectations in comparison to NHS patients.

10. Used two subjective outcome measures, could have looked at objective functional measures like ROM and strength.

11. No recorded harms to the experiment. No drops out due to injury. Relatively cheap to perform.



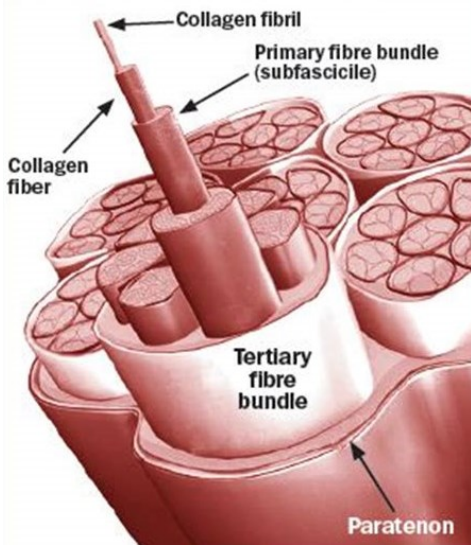


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#NEWSOFTHEWEEK - by Liz Wright

Nutrition in tendinopathy – Tom Goom and Fran Taylor (Nutritionist)

Can nutritional interventions help advance the recovery process in tendopathy presentations? Tendons (see image on the right) are made up of 85% collagen which is largely formed of two amino acids (proline and glycine). Gelatin is rich glycine. A recent study (see link below) trialled intermittent exercise with a vitamin C enriched gelatin supplement. This double blind placebo controlled trial, showed that with a 15g dose of gelatin there was two fold greater increase in collagen synthesis compared with intermittent exercise on its own. Clinically, this could mean that a dose an hour before a rehab session could shorten the timeframe between rest and getting back to function/sport. However don't jump to conclusions, this study was based on a small number of participants and more research is needed to establish optimal dose and duration of gelatin supplementation. Additional things that can be included in the diet which can help the injury recovery process include; leucine rich protein sources - stimulates muscle cell growth and repair, and tendon formation (lentils, tuna, cod, cottage cheese, almonds, milk); dietary nitrates (poor blood flow to a



tendon can result in difficulties supplying adequate nutrients to the area. Increasing the amount of nitrates in your diet e.g. beetroot, spinach, can increase the amount of nitric oxide in the blood, increasing blood flow; omega 3, e.g. oily fish, flaxseed, chia seed, aiding the inflammation process).

Food for thought: So is it combining physiotherapy with a devised nutrition plan which helps speed up the injury process? Or is it also perhaps mentally by knowing that we are taking some more control and are putting in additional effort to return to function/sport?

<http://www.running-physio.com/gelatin/>

[https://www.researchgate.net/publication/310471896_Vitamin_C-](https://www.researchgate.net/publication/310471896_Vitamin_C-enriched_gelatin_supplementation_before_intermittent_activity_augments_collagen_synthesis)

[enriched_gelatin_supplementation_before_intermittent_activity_augments_collagen_synthesis](https://www.researchgate.net/publication/310471896_Vitamin_C-enriched_gelatin_supplementation_before_intermittent_activity_augments_collagen_synthesis)

Exploring the management of painful diabetic neuropathy (PDN)

PDN is an unpredictable condition, described as an unpleasant burning pain, negatively impacting QOL. Current recommendations for the management of PDN do not go beyond drug management, which often fails to provide significant pain relief. Ben Davies, a specialist pain physiotherapist, who has recently written a PhD (University of the West of England) exploring whether strategies from pain management programs (PMP -physical activity and psychological coping skills) might be appropriate for people with PND. Overall there is a shortage of evidence for the use of PMP strategies in PDN. Following one-to-one interviews with 23 people, it was found PDN had a wide range of impacts on their lives, e.g. embarrassment for having pain with no clear cause, impacts on appetite and sleep. There was skepticism about how physical activity or psychological approaches could be beneficial for PDN. Some interviewees were clear their pain was





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due to 'nerve damage' and that exercise or 'talking to someone' had no relevance to their experience. However others, who had attended PMPs for other reasons such as back pain, felt these strategies could be applied to PDN. Specialist diabetes clinicians and specialist pain clinicians were also interviewed. From the sample, diabetes clinicians felt that people with PDN were at risk of foot damage if excessive physical activity was advised and that people with diabetes were medically more complex than the 'usual'

participants in a PMP. Sleep disturbance was consistently rated the top priority to be managed reported by those with PDN. Other top priorities were numb feet, worry for the future, loss of physical fitness and depression. Suggesting that pain reduction was not necessarily the most important priority for treatment for those with PDN. To summarise PMPs may not provide appropriate, adequate or desired help for people with PDN. Clinicians involved with diabetes and PDN should ideally be trained in eliciting the patient priorities and are then able to guide people to existing management strategies that address these. <https://bodyinmind.org/painful-diabetic-neuropathy-2/>

#FRACTUREFRIDAY by Joe Russell

Anatomy and pathology

Segond fracture is an avulsion fracture of the knee that involves the lateral aspect of the tibial plateau and is very frequently (~75% of cases) associated with disruption of the anterior cruciate ligament (ACL) tear. This is normally seen in two scenarios: falls and sports injuries, particularly skiing, baseball and basketball. Method of injury often involves valgus stress and internal rotation of the knee.

It is somewhat unclear which structure causes the avulsion, however likely contenders are the capsular ligaments, the iliotibial band and the anterior oblique band of the fibular collateral ligament.

Diagnosis

Bony fragments are normally easily identified on plain films X-Ray, however MRI is required in all cases due to the high frequency of internal derangement (ACL 75-100%; meniscal tear 66-75%)

Treatment

Although a relatively small fracture surgical intervention is often required due to the high frequency of ligamentous injury



Reference

<https://radiopaedia.org/articles/segond-fracture>

