



Clinical Weekly - 155th Edition

#JOURNALTUESDAY - by Abi Peck

**High load strength training improves outcome in patients with plantar fasciitis:
A randomised controlled trial with 12-month follow up**

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1. Did the trial address a clearly focussed issue?

Yes

- Studied 45 people over 18 with 3 month history of plantar fasciitis
- Aim to investigate the effectiveness of shoe inserts and stretches vs shoe inserts and high loading strengthening for plantar fasciitis
- Looked at pain, disability score, ultrasound imaging and satisfaction

2. Was the assignment of patients to treatments randomised?

Yes

- Block randomisation using a computer was used to put people into the two separate groups
- Main investigator overlooked this and wasn't blinded

3. Were all of the patients who entered the trial properly accounted for at its conclusion?

No

- 48 patients were recruited, 24 patients allocated to each group
- In the flow chart showing patient recruitment it highlights that the number of patients in each group declines from 1-12months. At 3 months they have 21 in the stretching group and 18 in the high load group.
- There was no indication about what happened to the people not accounted for

4. Were patients, health workers and study personnel 'blind' to treatment?

No

- Patients, health workers and study personnel were not blind to treatment intervention
- Main investigator overlooked allocation to groups

5. Were the groups similar at the start of the trial?

Yes

- A lot of similarities between the two groups
- Large variant in people who had received previous treatment (more in highload)
- More people in the high load group were taking pain relief – would outcomes be different as a result?

6. Aside from the experimental intervention, were the groups treated equally?

Yes

- Both groups were given information sheets and the same gel inserts
- At each interval both groups were assessed by the same physiotherapist and medical professional

7. How large was the treatment effect?

- The strength group had a 29 points lower score at 3 months for FFI
- This number would be a statistically significant difference – however based on a previous study they required 23 people in each group to prove the results to be statistically significant which they didn't have at 3 months.
- To be a clinically significant difference they required a point score difference of 7 which they achieved. However based on the score range for the FFI 0-230 this does not seem that substantial?
- None of the other outcomes changed substantially.

8. How precise was the estimate of the treatment effect?

- Confidence interval 6-52
- P value: 0.016 – results weren't down to chance

9. Can the results be applied in your context?

Yes

- A lot of the people used in this study are similar to patients we see in a physiotherapy context
- Harm – All patients recorded improved in FFI, unclear on why some patients were not accounted for at the end of this study – injury/increased pain?





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10. Were all the clinically important outcomes considered?

Yes

- Pain, disability score, objective plantar fasciitis changes, satisfaction.
- Would have liked to have seen compliance of exercises by patients keeping a diary
- Would have liked to have information on dropout rate

11. Are the benefits worth the harms and costs?

- Cost – relatively cheap to perform, simple protocol to follow

#NEWSOFTHEWEEK - by Liz Wright

1. 52-week programme leads to more weight loss than 12-week and is likely to be more cost effective in long term disease prevention.

NICE recommends that GPs refer obese people to 3 months of weight management programmes. Presently studies have compared different programmes but not directly looked at whether longer programmes may offer better results. This trial investigated whether a longer programme of 52 weeks was more effective in helping people to lose weight and maintain weight loss, compared to the standard 12 weeks; followed up for 2 years. The 52 week programme helped people to lose more weight over 1 year, maintain this weight loss better and produce greater improvements in waist circumference and blood sugar control, compared to the 12 week programme. Although the longer programme was more expensive initially, using a 25 year timeframe, the 52 week programme was estimated to save £8.61 million in direct health care costs compared with the 12 week programme. This trial supports NICE recommendations to refer obese people to weight loss programmes lasting at least 3 months. Most funded referrals are currently for 12-week programmes. This trial suggests that referring people to a 52-week programme may lead to more sustainable weight loss and be a better use of NHS resources. Local commissioners may want to consider commissioning 52-week programmes to realise greater long-term clinical and cost benefits.

<http://bit.ly/2ymbOD1>

2. Current approaches: rehabilitation for shoulder instability

Anju Jaggi and Susan Alexander have published a systematic outline to guide clinicians on how to identify muscular insufficiencies both local to the shoulder and global muscles that can influence instability. Management is based on expert experience and current literature. The aim of physiotherapy in treatment of instability is to restore pain-free and normal motor control by using several distinct techniques, applied appropriately on an individualised basis. A thorough history is key in understanding the type of instability, classified using a system such as the Stanmore triangle. Key elements in objective assessment are; posture and core stability, neurological and pain status and psychological factors. It is important to determine which of these factors is the 'driver' for the instability. The article goes on to offer further guidelines on assessing the motor control function of the shoulder, principles of assessment, specific instability tests, assessment of the rotator cuff, rehabilitating motor control (including early stages) and adjuncts to motor control processing. Follow the link for the open access journal.

<http://bit.ly/2xOp8J>





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#NEWSOFTHEWEEK - by Liz Wright

3. The Guardian: The 'miracle pill': how cycling could save the NHS

There is a credible argument that encouraging bike use to Dutch levels could do more than perhaps any other single intervention to help the NHS. Public health experts routinely describe a pandemic of preventable illness connected to physical inactivity. 85,000 Britons are estimated to die early each year because of this. Health services are further squeezed as inactivity has a huge effect on social care costs, as people are less able to look after themselves. Benefits of cycling > walking/other moderate activity:

- People are more likely to push their cardiovascular systems that bit harder on a bike, especially tackling hills.
- A study published in April, which followed the lives of >250,000 Britons over 5 years found the chances of avoiding cancer/heart disease were notably greater for those who cycled to and from work as against for those who walked.
- It falls into the category known as incidental activity – exercise built around people's everyday lives.
- One of the best ways for activity to be maintained in a world when the majority of jobs are desk-bound.

Worryingly in the UK cycle commuting rates have remained fairly static at about 3%. Transforming this would involve years of political will to develop safe bike routes across the UK and to disincentivise driving for short trips. <http://bit.ly/2wAkBnB>

#FRACTUREFRIDAY BY JOE RUSSELL

Carpal bone fractures– Hamate Fracture

Anatomy

The hamate is the most medial of the distal row of the carpal bones. It has a hook-like process extending from its palmar surface. Interestingly it does not fully ossify in humans until around the 15th year. The hook of hamate forms the ulnar border of the carpal tunnel and the radial border of Guyon's canal.

Epidemiology

Fractures often occur in racket and club sports. It is often associated with golfers hitting the ground on the downswing. Commonly fractures are missed on normal X-ray imaging and may require CT or MRI-A. Patients often describe pain over the hypothenar eminence and can complain of neurological symptoms in the ulnar nerve distribution of the little finger and partially the ring finger.

Management

Management is often conservative but care must be taken as there is a high risk on non-union due to the venous blood supply to the hamate.



Resources

<https://radiopaedia.org/cases/hook-of-hamate-fracture>

<https://radiopaedia.org/cases/hamate-fracture-2>

