Clinical Weekly - 171st Edition

#JournalTuesday - by Abi Peck

Arthroscopic subacromial decompression for subacromial shoulder pain (CSAW): a multicentre, pragmatic, parallel group, placebo-controlled, three-group, randomised surgical trial Download here

1. **Did the trial address a clearly focussed issue?**
   Yes, is an arthroscopic subacromial decompression for subacromial pain an effective treatment option?
   -Looked at people with 3 month history of subacromial pain
   -Looked 32 hospital sites
   -Primary outcome: oxford shoulder score
2. **Was the assignment of patients to treatments randomised?**
   Yes patients were randomly assigned to the 3 intervention groups by computer generated minimisation system.
3. **Were all of the patients who entered the trial properly accounted for at its conclusion?**
   Yes everyone was accounted. Discussed patients that had withdrawn or didn't want to take part. More information was given in appendix.
4. **Were patients, health workers and study personnel 'blind' to treatment?**
   Patients were blinded to the decompression surgery vs just the arthroscopy. The study does not mention if the researcher was blinded when collecting the results. However, results were collected in questionnaire format so less likely to have researcher bias.
5. **Were the groups similar at the start of the trial?**
   Unclear how similar groups were during recruitment. Computer generator used randomisation to minimise group differences in accordance with age, gender, baseline oxford scores and the site recruited from.
6. **Aside from the experimental intervention, were the groups treated equally?**
   The groups were treated equally. Both groups who had procedure had the same information and general exercises during follow up. They received between 1-4 sessions physiotherapy follow up appts. The no treatment group received no injections or exercises.
7. **How large was the treatment effect?**
   No statistically significant differences between the subacromial decompression group vs just the arthroscopy. Both these groups made small improvements compared to the non-treatment group but this wasn't clinically significant.
8. **How precise was the estimate of the treatment effect?**
   -Between subacromial decompression surgery vs arthroscopy, -1.3 difference. P value = 0.31
   -Between subacromial decompression surgery vs no treatment 2.8 difference. P value = 0.0186
   -Arthroscopy vs no treatment 4.2 difference, p value = 0.0014
9. **Can the results be applied in your context?**
   Yes, baseline characteristics will be similar to patients seen in NHS context.
10. **Were all the clinically important outcomes considered?**
    Yes, pain + function + psychological factors were all taken into consideration.
11. **Are the benefits worth the harms and costs?**
    Ethics – some people received no intervention for 6 months. Some people had scar tissue although they received no surgical intervention. Cost of surgical intervention. Some people had frozen shoulder post intervention.

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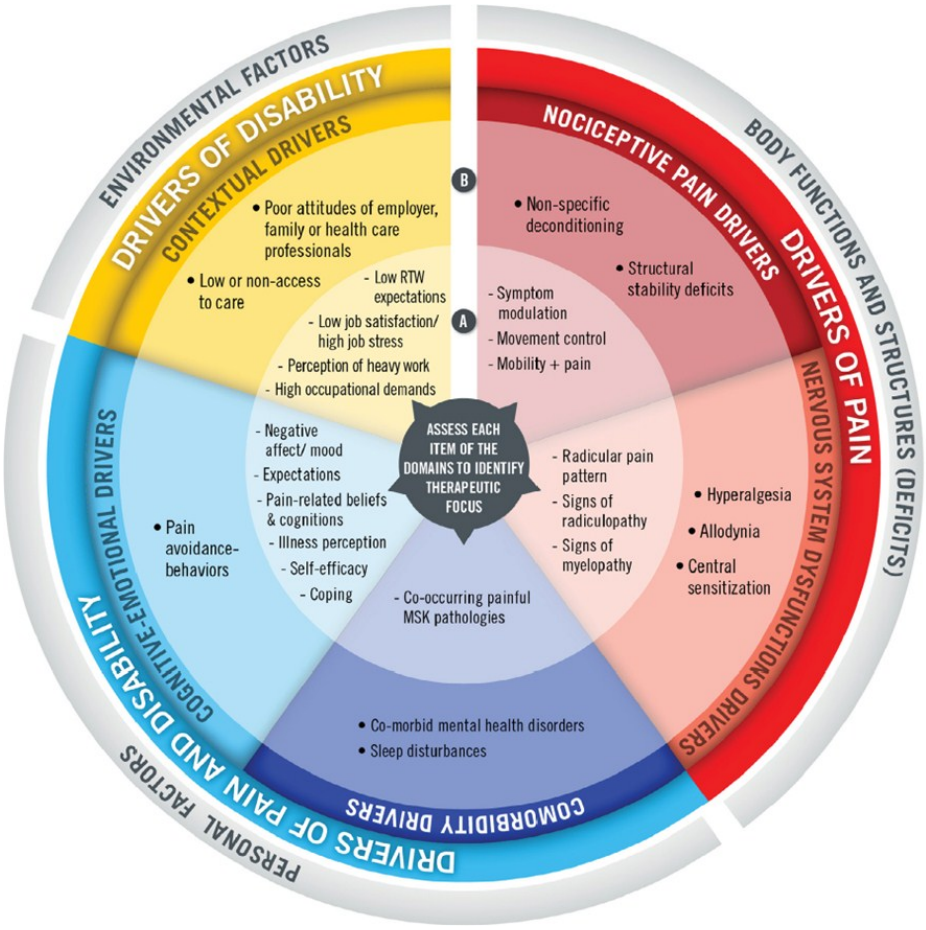
#NewsOfTheWeek - by Liz Wright

1. Low prevalence of hip and knee arthritis in active marathon runners

The aim of the study (level III evidence) was to describe hip and knee health in active marathon runners (prevalence of pain, arthritis, and arthroplasty, and associated risk factors). Active marathoners who completed ≥5 marathons and were currently running a minimum of 10 miles per week were included (n = 675). Questions assessed pain, personal and family history of arthritis, surgical history, running volume, personal record time, and current running status. Age, family history, and surgical history independently predicted an increased risk for hip and knee arthritis in active marathoners, although there was no correlation with running history. In the cohort, the arthritis rate of active marathoners was below that of the general U.S. population. Longitudinal follow-up is needed to determine the effects of marathon running on developing future hip and knee arthritis.
http://bit.ly/2noRsW3

2. Rehabilitation management of low back pain – it's time to pull it all together!



Rehabilitation research initiatives for LBP have targeted outcome enhancement through personalised treatment approaches, mostly through classification systems for example the StarT Back Tool. Although the use of classification systems has aided outcomes, overall common management practices have not changed, the prevalence of LBP is still high, and only selected patients meet the classification system profile.

There is no theoretical framework that has been proposed that guides the rehabilitation management process of mechanical LBP. In this commentary, this model is proposed which involves 5domains (nociceptive drivers, nervous system dysfunction drivers, comorbidities drivers, cognitive–emotional drivers, and contextual drivers). Each domain is linked to the International Classification of Functioning, Disability and Health, where once a patient is deemed suitable for rehabilitation, the clinician assesses elements of each domain in order to identify where the relative treatment efforts should be focused.
http://bit.ly/2nysT8m

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#FractureFriday by Joe Russell

ACL avulsion fractures

Anatomy & Epidemiology

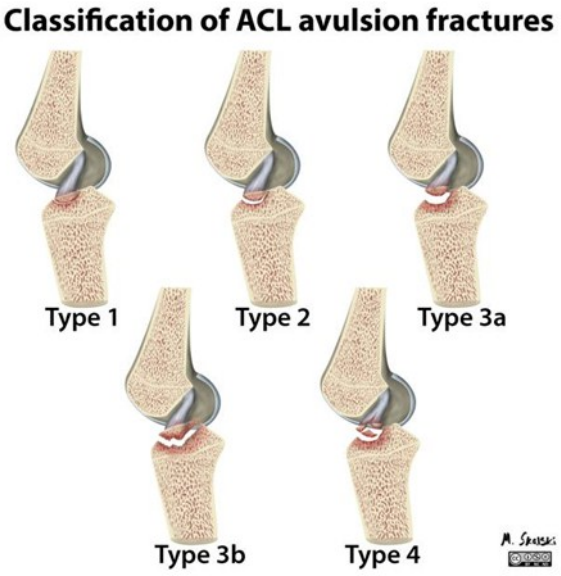
The anterior cruciate ligament (ACL) is one of 4 ligaments in the human knee. It runs from deep in the notch of the distal femur and attached in the anterior aspect of the tibial plateau. It provides a restraining force against anterior tibial displacement on the femur. ACL avulsion fractures are also known as tibial eminence avulsion fractures. Femoral displacement is rare.

Hyperextension of the knee is the most common method of injury resulting in ACL avulsion. This is commonly seen in skiing and football accidents and is more common in children than adults. Normally plain film imaging is sufficient for initial diagnosis, MRI or CT are commonly used for treatment planning and observation.

ACL avulsions are classified into 4 main types using the Meyers and McKeevers classification initially described in 1959, and later has been modified by Zaricznyj in 1977:

Type 1: minimally/nondisplaced fragment
Type 2: anterior elevation of the fragment
Type 3: complete separation of the fragment
- **-type 3a:** involves small portion of eminence
- **-type 3b:** involves the majority of the eminence

Type 4: comminuted avulsion or a rotation of the fracture fragment



Treatment

Non-operative reduction is often possible in type 1 and 2 and some 3a fractures. The knee is fixed in full extension with brace or casting. Repeat plain films would show reduction. Type 3b and 4 typically require surgical ORIF. Typically a slight loss of terminal extension is expected with some mild laxity in the ACL on testing.

Reference:
https://radiopaedia.org/articles/anterior-cruciate-ligament-avulsion-fracture
http://www.orthobullets.com/pediatrics/4022/tibial-eminence-fracture