Clinical Weekly - 167th Edition

#JournalTuesday - by Abi Peck

Should exercises be painful in the management of chronic musculoskeletal pain? A systematic review and meta-analysis. Download here

1. Did the review address a clearly focused question?

-Yes, a systematic review looking at the effect of painful exercises vs pain-free exercises

-Look at pain, disability and function

2. Did the authors look for the right type of papers?

-Used a keyword search strategy

-Used papers that looked at general population with any MSK conditions that had been persistent for 3 months

3. Do you think all the important, relevant studies were included?

-Used exclusion/inclusion criteria

-Looked at electronic database from inception to October 2016

-Looked at publish/unpublished studies

4. Did the review's authors do enough to assess the quality of the included studies?

-Each study's methodology was reviewed (used Cochrane's risk of bias to assess)

5. If the results of the review have been combined, was it reasonable to do so?

-Results were similar

-Not all papers looked at results at 6 months

6. What are the overall results of the review?

-No real difference between using painful and not painful exercises

-However painful exercises may be slightly better in the short term - 0.27 significance

7. How precise are the results?

-0.27 in favour of painful exercises in the short term

-95 % confidence interval

-No significant difference in medium/long term.

8. Can the results be applied to the local population?

-Yes, big sample size with different studies.

-The effect of different joints

-Population used - patients

9. Were all important outcomes considered?

Function, pain and disability

10. Are the benefits worth the harms and costs?

No harms reported with systematic review

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#NewsOfTheWeek - by Liz Wright

1. Shoulder injuries found to be most common tendon injury at Rio Olympic Games

The Rio Olympics has provided researchers with a wealth of data, helping to draw vital conclusions that could reduce the rate of injuries in the future. The most recent data has revealed the athletes at the games were most likely to develop shoulder tendon injuries, particularly in female track and field athletes. The results have been published in the BJSM in two different studies. In total 156 tendon abnormality injuries and 25 bone stress injuries were studied, within the 11,000 athletes , representing 200 countries. Whilst stress injuries proved more common in the lower limb, tendon abnormalities proved more common in the upper limb. Tendon injuries, despite being common, can jeopardise an athletes career, typically because the injury is not treated quickly enough. Failure to detect and treat will prevent the athlete from competing and training. Worryingly up to 95% of athletes who competed in the London Olympic Games, were injured. Many years of hard work to compete are a necessity, so it is not surprising many will compete with an existing injury. This highlights the importance of seeking early treatment, and why imaging could be the best preventative measure. http://bit.ly/2BiTwXB and http://bit.ly/2AVfIEw

2. Does 'proximal control' need a new definition or a paradigm shift in exercise prescription? A clinical commentary

There is level 1 evidence that 'proximal control' exercises are effective in the management of common musculoskeletal injuries of the lower extremity. However, there is little agreement on what 'proximal control' involves and the evidence is not consistent across all outcome measures. A new concept that embraces a complex intervention paradigm has been presented. Where exercises are designed around the arthrokinematics (movement of joint surfaces), biomechanics and global physical demands of the entire kinetic chain. This blended approach incorporates components of both hip-focused exercise and full-body dynamic movements to more accurately reflect contemporary clinical practice. The central concept of this approach is the integration of the trunk as the primary lever for resistance rather than the femur. Utilising the trunk as the moving lever over a fixed femur may provide more innovative ways to create strength and neuromotor changes at the hip allowing for more global and complex exercises to be termed 'proximal control'. Future interventions in this field must evolve, appreciating the complexities of human movement and to better reflect current progressive clinical practice patterns. http://bit.ly/2yosB7y

3. Can we predict the clinical outcome of arthroscopic partial meniscectomy? A systematic review

32 studies met the inclusion criteria for this systematic review. Moderate evidence was found, that the presence of radiological knee OA at baseline and longer duration of symptoms (>1 year) are associated with worse clinical outcome following arthroscopic partial meniscectomy. In addition, resecting >50% of meniscal tissue and leaving a non-intact meniscal rim after meniscectomy are intra-articular predictive factors for worse clinical outcome. Moderate evidence was found that sex, onset of symptoms (acute or chronic), tear type or preoperative sport level are not predictors for clinical outcome.
http://bit.ly/2iY29MG

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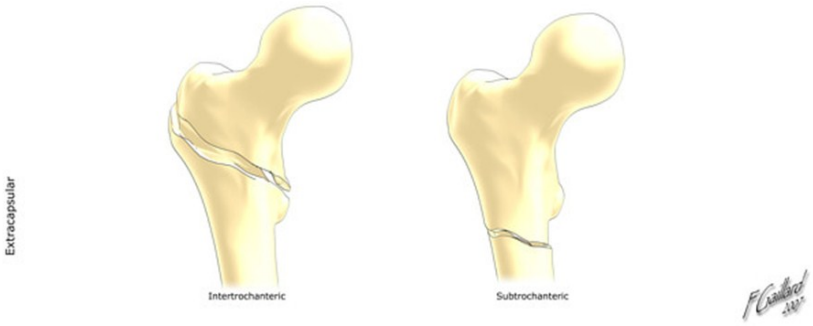
#FractureFriday by Joe Russell

Extra capsular femoral fractures

Anatomy
The hip is comprised of the femoral head and acetabulum, with the femoral neck joining the trochanteric region and femoral shaft. Blood supply for the femoral head is derived from vessels within the hip capsule. When a fracture of the femoral neck occurs, disruption to these blood vessels can occur result in devascularisation of the femoral head and resulting avascular necrosis.

Proximal fractures of the femur at classified on location either intracapsular or extracapsular.



Epidemiology
They tend to occur in older patients, and in those who have osteoporosis. In this group of patients, fracture is usually the result of low-impact trauma although, in younger patients they are usually victims of high-impact trauma, usually during a car accident.

Classification
Intertrochanteric fractures are subdivided as per number of fragments into:
-Two-part linear intertrochanteric fracture stable
-Three-part with comminution of lesser trochanter or greater trochanter
-Four-part with comminution of both trochanters
-Multi-part with comminution of both trochanters and intertrochanteric region

Subtrochanteric fractures are subdivided using the Fielding classification based on the level of the subtrochanteric region through which the fracture extends:

Type I: at the level of the lesser trochanter (most common)
Type II: within the region 2.5 cm below the lesser trochanter
Type III: within the region 2.5 cm to 5 cm below the lesser trochanter (least common)

Treatment
It is important for the correct treatment to be selected in extracapsular femoral fractures as there is a high risk of avascular necrosis. As a general rule, internal fixation is recommended for young, otherwise fit patients with small risk for AVN. While prosthetic replacement is reserved for fractures with a high risk of AVN and the elderly.

The risk of AVN depends on the type of fracture. The Delbet classification correlates with the risk of AVN:
-Type 4 (intertrochanteric): ~10% risk of AVN

Reference: https://radiopaedia.org/articles/trochanteric-fracture