

# COCHRANE CORNER



Correspondence should be sent to A. Das <sup>MRCSEd</sup>  
Trauma & Orthopaedics, Queens Medical Centre,  
Nottingham University Hospitals, Nottingham, UK  
E-mail: avidas17@doctors.org.uk

## SURGERY FOR TRIGGER FINGER

Trigger finger, or stenosing tenosynovitis, is perhaps one of the most common presentations to the hand clinic. In common with many minor complaints in the hand, the course of the condition is relapsing and remitting, and there are a range of recognized treatments including injections and surgery. The most commonly offered and established treatments are either a corticosteroid injection into, or surgical release of, the A1 pulley. This study from **São Paulo (Brazil)** reviewed the current literature looking at the effectiveness and safety of the various treatment modalities in adults.<sup>1</sup> The authors identified 14 trials that, between them, included reports of nine different comparisons between steroid injection, hyaluronic injection, percutaneous surgery, endoscopic surgery, and open surgery. One study also compared three different types of skin incision for open surgery. The review team did not present findings for all the possible comparisons, but offers a comparison of the two most widely accepted treatments, steroid injection *versus* open surgery, for which two trials formed the main basis. Unfortunately, these trials were deemed by the review team to have low-quality evidence, as well as a not insignificant risk of bias in the reported results. The authors indicate that they are uncertain about any differences in the resolution rate of symptoms from the evidence presented, but report that open surgical treatment may have a lower recurrence rate. Furthermore, when looking at their other comparisons, they did not find enough evidence to suggest any one type of surgery was better than another. Considering the frequency of trigger finger as a diagnosis, we are somewhat surprised here at 360 that there is such an evidence gap in its treatment.

## ABSORBABLE *VERSUS* NON-ABSORBABLE SUTURES FOR SKIN CLOSURE AFTER CARPAL TUNNEL DECOMPRESSION SURGERY

Turning to another 'bread and butter operation' on the day case list for hand surgeons, an extensive review from **Leeds (United Kingdom)** reviewed the evidence supporting different skin closure techniques in carpal tunnel syndrome.<sup>2</sup> There is quite a variation in practice regarding suture of choice for skin closure following carpal tunnel decompression, and decisions in most units are apparently based on surgeon preference and anecdotal experience. However, there is quite a body of evidence examining surgical closure in emergency surgery. The review team were able to identify five trials reporting the outcomes of 255 patients that reported on closure methods following carpal tunnel release. All of the trials evaluated short-term outcomes up to 12 weeks, and a range of

outcome measures were reported that were suitable for data extraction and meta-analysis. The study authors were able to perform meta-analyses for postoperative pain scores and wound inflammation. They also report on postoperative hand function and scar satisfaction from individual trials. Unfortunately, all trials were deemed to have very low-quality evidence and authors were not able to find any robust evidence that one type of suture was better than another. So, despite the attempts to build an evidence base, it appears that expert opinion and unit preference will continue to guide skin closure in carpal tunnel decompression, with all methods appearing to be equally effective.

## PERCUTANEOUS VERTEBROPLASTY FOR WEDGE COMPRESSION FRACTURE

Moving away from hand surgery, the final of three intervention-based reviews is an updated review of percutaneous vertebroplasty for osteoporotic wedge compression fracture from a team in **Malvern (Australia)**, who looked at the evidence for efficacy of this treatment.<sup>3</sup> Osteoporosis continues to be a challenge in our ageing population, and the common sequelae of wedge compression fractures causing kyphotic deformity, pain, and disabling is often the chief complaint. However, in severe cases, patients can also suffer respiratory compromise. We have relied upon medical management and physical therapy in the past, with the only surgical options being large multilevel stabilizations, with the attendant complications and risks. In the last decade or so, percutaneous vertebroplasty has become a treatment option for the acutely painful fracture, where a cannula is passed percutaneously down the pedicle and the vertebral body filled with cement. This can both stabilize fractures and, in certain cases, correct deformity as the cement is inserted under pressure. The authors of this extensive review identified 21 trials with a number of comparisons (including usual care, kyphoplasty, and injection). The authors, however, have chosen to make vertebroplasty *versus* placebo the main comparison and focus of the review. Within the 21 identified studies, there were five placebo-controlled trials suitable for inclusion in this review, with an additional two trials included since the last review in 2015. The authors reported high- to moderate-quality evidence that vertebroplasty confirmed no clinically important benefits over sham surgery with regards to pain, disability, disease specific, and quality-of-life scores, and as such do not support its use in routine practice. This finding is at odds with current practice and certainly should give some pause for thought as to which patients (if any) with acute fractures are suitable for percutaneous vertebroplasty.

## EXERCISE INTERVENTIONS AND PATIENT BELIEFS FOR PEOPLE WITH HIP AND/OR KNEE OSTEOARTHRITIS

Chronic pain from osteoarthritis not only causes physical disability, but also often has a significant impact on psychosocial wellbeing. As clinicians, we regularly recommend exercise interventions, and the majority of national guidelines (including National Institute for Health and Care Excellence (NICE) guidelines) recommend exercise intervention as the first port of call in management of arthritis. There is also mounting evidence that patients with pain do not do well from a mental health perspective, and that this can have a marked effect on patient outcomes. This interesting review from **London (United Kingdom)** looks holistically at the effect of exercise on physical, emotional, and mental health, as well as canvassing opinion on exercise interventions.<sup>4</sup> The authors found 21 relevant studies with a total of 2372 participants for quantitative synthesis. Moderate-quality evidence suggested that exercise reduced pain and improved physical mobility, although smaller benefits were seen for depression and no clinically significant difference was seen for anxiety. A further 12 studies included in this review looked at the change in people's opinions and experiences of exercise after exercise interventions. This qualitative analysis led the authors to believe that participants generally had good experiences with exercise but felt a lack of information and advice. It seems from this well-constructed and thorough review that exercise interventions do, as most guidance suggests, improve outcome for patients both in terms of pain and depression. This review nicely rounds up where we are with physiotherapy interventions, and reinforces current practice.

## COMPREHENSIVE GERIATRIC ASSESSMENT FOR OLDER PEOPLE ADMITTED TO A SURGICAL SERVICE

Elderly patients who are admitted to a surgical service, and those who require surgery, often have concurrent active medical problems and multiple coexisting medical issues. This adds to their inherent challenge in treatment and is reflected in higher morbidity and mortality rates. This is all too familiar in orthopaedics, where we now have well-established care pathways for our older patients with tariff-led best practice to include geriatric assessment. This has been the biggest change in management of orthopaedic patients in the current century. Nearly every country now has its own approach to the 'comprehensive geriatric review' that involves some form of shared-care model. This review from **Edmonton (Canada)** set out to establish if there is evidence for what must be one of the largest ever global healthcare investments in elderly trauma.<sup>5</sup> The authors identified eight randomized trials assessing the post-operative outcomes of older people comparing comprehensive geriatric

assessment with standard care, of which seven trials looked at the hip fracture population. The authors found moderate- to high-quality evidence that comprehensive geriatric assessment reduced mortality and reduced discharge to an increased level of care for the hip fracture population. The data also suggested probable benefits with length of stay and overall healthcare cost. It is reassuring to read that a comprehensive falls assessment has the effect on outcomes that the profession hoped it might. Here at *360*, we would like to see similar randomized studies establishing the efficacy of such an intervention in other frailty diagnoses.

## EARLY INTERVENTION (MOBILIZATION OR EXERCISE) FOR CRITICALLY ILL ADULTS IN THE INTENSIVE CARE

A large proportion of our severely injured trauma patients will require admission to the Intensive Care Unit (ICU), with some centres reporting that up to 40% of ICU admission are trauma-related. Part of the standard package of care for these patients is physiological support; however, patients also receive nutritional and rehabilitation support at the same time. Sadly, survivors of such critical illness often have physical and cognitive problems lasting long into their rehabilitation, if not permanently. This review from **Gold Coast (Australia)** assesses the impact of early mobilization or active exercise on physical parameters and quality of life.<sup>6</sup> The review was not specific to trauma and nor did any study trials include trauma patients, although conclusions may still be valid for the patients we see. The authors report four trials with mixed results and low-quality evidence from which no conclusion can be drawn, but suggest that early intervention appears safe with limited adverse events. Further research is clearly required but, intuitively, appropriate exercises to prevent muscle weakness and joint stiffness in our patients with musculoskeletal injuries on ICU would seem to be a good thing.

## REFERENCES

1. Fiorini HJ, Tamaoki MJ, Lenza M, et al. Surgery for trigger finger. *Cochrane Database Syst Rev* 2018;2:CD009860.
2. Wade RG, Wormald JCR, Figus A. Absorbable versus non-absorbable sutures for skin closure after carpal tunnel decompression surgery. *Cochrane Database Syst Rev* 2018;2:CD011757.
3. Buchbinder R, Johnston RV, Rischin KJ, et al. Percutaneous vertebroplasty for osteoporotic vertebral compression fracture. *Cochrane Database Syst Rev* 2018;4:CD006349.
4. Hurley M, Dickson K, Hallett R, et al. Exercise interventions and patient beliefs for people with hip, knee or hip and knee osteoarthritis: a mixed methods review. *Cochrane Database Syst Rev* 2018;4:CD010842.
5. Eamer G, Taheri A, Chen SS, et al. Comprehensive geriatric assessment for older people admitted to a surgical service. *Cochrane Database Syst Rev* 2018;1:CD012485.
6. Doiron KA, Hoffmann TC, Beller EM. Early intervention (mobilization or active exercise) for critically ill adults in the intensive care unit. *Cochrane Database Syst Rev* 2018;3:CD010754.

© 2018 The British Editorial Society of Bone & Joint Surgery. DOI: 10.1302/2048-0105.73.360614