

## Short Commentary

# What's New in Rehabilitation Post Orthopaedic Trauma?

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Traumatic bone and joint injury is a significant cause of morbidity - particularly in the working population. Trauma can be because of multiple reasons may be accidents, sports injury or fall during work etc. *Rehabilitation* services provide treatment to improve mobility, increase strength, pain management and mental health difficulties after a major *trauma* incident. *Rehabilitation* after *trauma* facilitates safe and speed recovery by eliminating the patient's inhibitions and providing holistic care. Hereby we shall see what the recent advances which have happened in upper limb segment. Let us take by each area.

## Shoulder

Subacromial impingement syndrome is very common cause of shoulder pain and accounts for 44%-65% of all shoulder complaints in people older than 40 yrs. The pathophysiological mechanism is the mechanical impingement of the rotator cuff tendons as they pass through the subacromial space, which leads to a condition of inflammation and irritation [1-3]. So a meta-analysis was done to compare injection through ultrasound guided technique and anatomic landmark based injections. In this study there is moderate to very low evidence that USG corticosteroid injection results in significant pain relief and improvement in physical function. Short-term retention between 6 and 8 wks after injection and the type of corticosteroid used potentially affect the treatment efficacy of ultrasound as reported in this study. Adverse events were relatively low in both groups, which justify the safety and efficacy of USG injection [4].

Another new method of using diagnostic ultrasound in adhesive capsulitis was evaluated in 65 patients and found that coracohumeral ligament thickness had significant inverse correlations with shoulder range of motion in external rotation and internal rotation but not in abduction or flexion. This study done by Wu et al, published a novel use of diagnostic ultrasound with adhesive capsulitis. Also coracohumeral ligament thickness showed significant correlation with disease duration. Utilizing diagnostic ultrasound in this way can help to confirm diagnoses such as adhesive capsulitis, leading to early intervention and treatment.

## Hand

Osteoarthritis of the first carpometacarpal joint is common disease, especially in postmenopausal women. First carpometacarpal joint osteoarthritis quite distressing as it can result in pain and functional limitations. In a cohort study done of 308 patients who underwent nonoperative treatment with exercise therapy, an orthosis, or both, Hoogendam et al. investigated how satisfaction with treatment

outcome is associated with patient mindset and Michigan Hand Outcome Questionnaire (MHQ) scores at baseline and 3 months. They concluded that positive pre-treatment outcome expectations were associated with a higher probability of being satisfied with treatment outcomes at 3 months. But satisfaction after nonoperative treatment of first CMC osteoarthritis is not yet optimal, positive expectations of treatment outcomes are associated with higher satisfaction. Therefore, optimizing patient expectations may further improve treatment expectations and outcomes [5,6]. In another systematic review and meta-analysis which included 11 RCTs, Marotta et al. compared the effectiveness of 4 different orthoses (short thermoplastic CMC splint, long thermoplastic CMC-metacarpophalangeal [MCP] splint, short neoprene CMC splint, and long neoprene CMC-MCP splint) with that of no splinting for first CMC osteoarthritis. All splints were superior to no splinting at reducing pain. Based on outcomes measured at 3 to 6 months following the index treatment, the long thermoplastic CMC-MCP splint was the first choice for reducing pain, and the short thermoplastic CMC splint was the first choice for improving function; both effects were significant compared with no splinting [7].

## References

1. Garving C, Jakob S, Bauer I (2017). Impingement syndrome of the shoulder. *Dtsch Arztebl Int* 114: 765-76 [crossref]
2. Andersson HI (2004). The course of non-malignant chronic pain: a 12-year follow-up of a cohort from the general population. *Eur J Pain* 8: 47-53. [crossref]
3. Creech JA, Silver S (2021). Shoulder impingement syndrome. *StatPearls Publishing LLC*. [crossref]
4. Deng X, Zhu S, Li D, Luo Y, Zhang X, et al. (2021). Effectiveness of ultrasound guided versus anatomic landmark-guided corticosteroid injection on pain, physical function and safety in patients with subacromial impingement syndrome: a systematic review and meta-analysis. *Am J Phys Med Rehabil*. [crossref]
5. Hoogendam L, van der Oest MJW, Wouters RM, Andrinopoulou ER, Vermeulen GM, et al. (2021). Hand-Wrist Study Group. Patients with higher treatment outcome expectations are more satisfied with the results of nonoperative treatment for thumb base osteoarthritis: a cohort study. *Arch Phys Med Rehabil* 102: 1533-40.
6. Wu PY, Hsu PC, Chen TN, Huang JR, Chou CL, et al. (2021). Evaluating correlations of coracohumeral ligament thickness with restricted shoulder range of motion and clinical duration of adhesive capsulitis with ultrasound measurements. *PM R*. 13: 461-9. [crossref]
7. Marotta N, Demeco A, Marinaro C, Moggio L, Pino I, et al. (2021). Comparative effectiveness of orthoses for thumb osteoarthritis: a systematic review and network meta-analysis. *Arch Phys Med Rehabil* 102: 502-9.

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