# EFFECTS OF ECCENTRIC EXERCISE ACCOMPANY WITH AND WITHOUT DRY NEEDLING IN PATIENTS WITH CHRONIC ROTATOR CUFF TENDINOPATHY

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# **Background and Aims**

The eccentric exercises (EE) can be effective on reducing inflammation. Besides, dry needling (DN) may affect blood circulation. The purpose of this study is effects of combined treatment methods (EE + DN) on chronic rotator cuff tendinopathy.

#### **Methods**

Twenty-eight patients with shoulder pain (chronic rotator cuff tendinopathy) were recruited for this study. The patients were randomly divided into two groups including; Intervention (EE + DN) and Control (EE). All patients had eight sessions of treatment including eccentric exercises. The patients in intervention group were under DN application as well. All patients were evaluated four times (before, after third session and after treatment accomplishment, and 72 hours following last treatment session). The patients were evaluated to identify levels of pain and function.

### Results

All variables would be improved following treatment in both groups at the time of treatment accomplishment. (P < 0.001). The improvement level would be lasted 72 hours after treatment accomplishment in combined group, while it was not long lasted for most of the outcome measures following only eccentric exercise group. The patients in EE control group showed just improvement level of TFAST scale after 72 hours of treatment accomplishment.

# Conclusion

The results showed that EE + DN protocol could be much effective compare to the EE application alone and improve level of pain and better function on the patients following chronic rotator cuff tendinopathy.

Keywords: Tendonitis, eccentric exercise, dry needling