

# ECCENTRIC EXERCISE IN TREATMENT OF PATELLAR TENDINOPATHY IN HIGH LEVEL BASKETBALL PLAYERS. A RANDOMIZED CLINICAL TRIAL

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**Introduction:** Chronic patellar tendinopathy is a common pathology in sporting population. To date, there is no agreed upon protocol as election treatment. Eccentric exercises have been used with satisfactory outcomes (3). The purpose of this trial was to compare the effects of 2 eccentric exercise protocols. **Methods:** A prospective randomized clinical trial was constructed with a 1 month follow-up. Six high level basketball players (8 tendons) were recruited and randomized to 1 of 2 treatment groups (G1 = 4; G2 = 4). Pain and function were evaluated through EVA and VISA-P questionnaires before, during, and after the treatment. Group A: Based on Durham's protocol, it consisted of 3 sets of 15 repetitions, using no added weight, of half squats on a 25° declined platform, 2 times per day, 7 days per week. Group B: Consisted of 4 sets of 6 repetitions with 100% of 1MR for 1 leg, 3 days per week, in non-consecutive days, in leg extension machine. Both protocols were done with no restriction of competition. **Results:** After 4 weeks the outcomes showed that, despite improvement in both groups, none of the protocols reported a significant improvement in VAS or VISA-P. When analyzing the outcomes for VAS, in Group A the values decreased below baseline. Regarding the VISA-P values, Group A improved strength and function when pain perception decreased. In group B values kept a sustained growth. Comparing both protocols, no significant differences are noted in VAS values ( $Z = 1.01$ ;  $p > 0.05$ ) or VISA-P ( $Z = 0.20$ ;  $p > 0.05$ ). **Discussion:** Most of studies used Durham's protocol combined with restriction of competition, with satisfactory results. We propose another eccentric protocol that includes overload training, to improve strength, and no restriction of competition. After 4 weeks of eccentric exercise protocol most of tendons in both groups improve function during treatment but does not significantly.

Despite no significant difference we propose managing the tendinopathy with eccentric exercises during the competitive season to avoid deterioration. **Mail to:** C. Sosa csosa@clubestudiantes.com.