



# JUMP TESTS AS A CRITERION OF NEUROMUSCULAR RECOVERY AFTER MATCHES IN ELITE FUTSAL PLAYERS

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**INTRODUCTION:** Jump tests have been applied in different sports to assess the neuromuscular fatigue after a period of intensive workload training period or competition, nevertheless no data related with this methodology has been reported in elite Futsal. Then the purpose of this study was to apply the jump test methodology to determine the neuromuscular fatigue after matches as criterion to restart training sessions.

**METHODS:** 15 elite Spanish Futsal players carried out two jump tests (Squat Jump (SJ) and Counter Movement Jump (CMJ)). First test was performed the day before (24 h pre-match) and the second one the day after (48 h post-match) of matches during two training season (2008-2010). The warm-up before all tests was standardized. Flight times of Jump tests were recorded by means Muscledab system (Ergotest Innovation, Norway). Each player performed two attempts of each test and the highest height was recorded (expressed in cm), moreover the peak power was estimated (expressed in W) by means Sayer's equation. Comparisons between pre-match and post-match were done by means a Wilcoxon test due to data did not follow the normality. Statistical significance was set at  $p < 0.05$ .

**RESULTS:** After comparisons between before- and after-matches there did not find significant differences neither for height (Fig 1) nor for peak power (Fig 2) in two Jump tests measured.

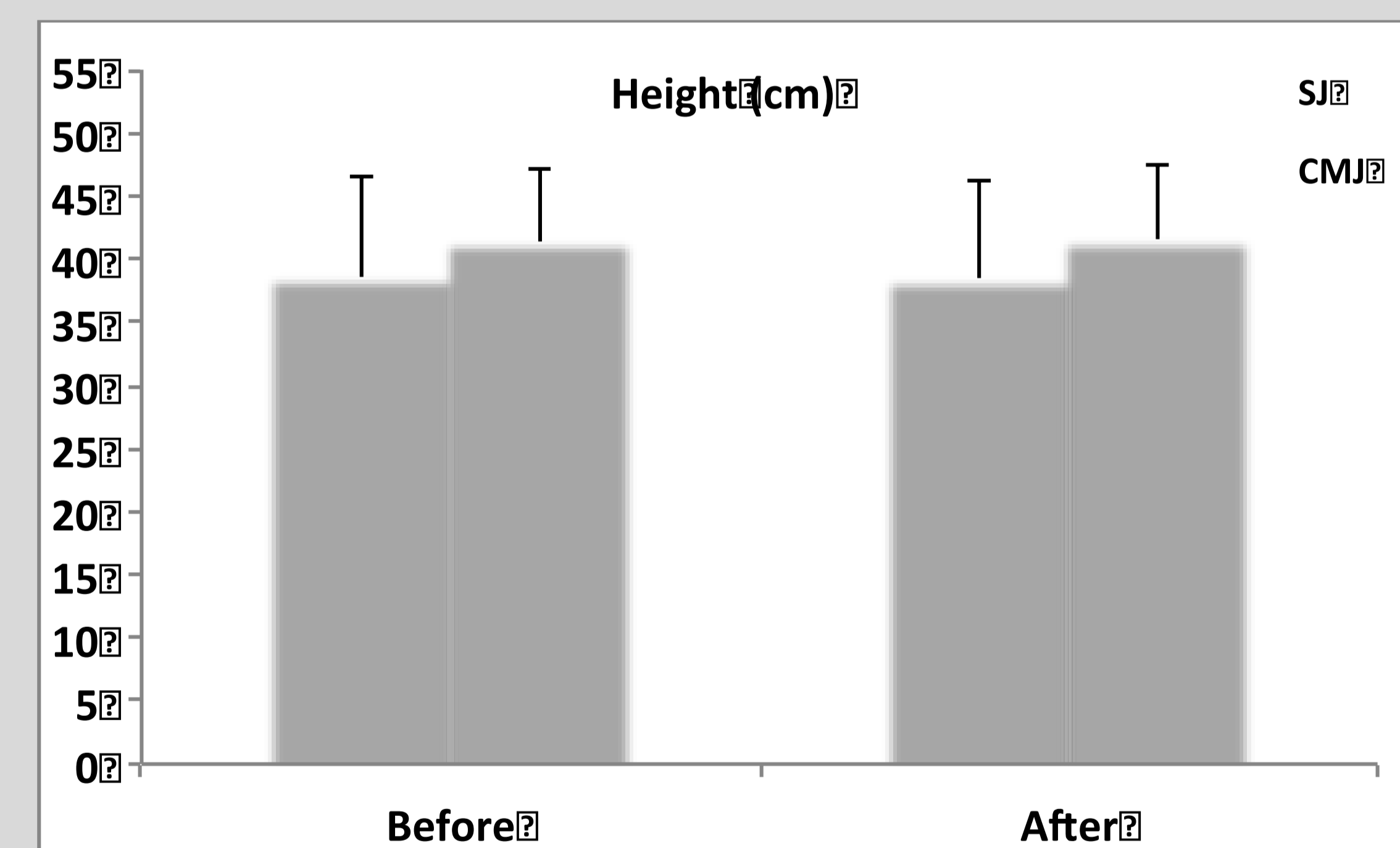


Figure 1. Height achieved in jump tests.

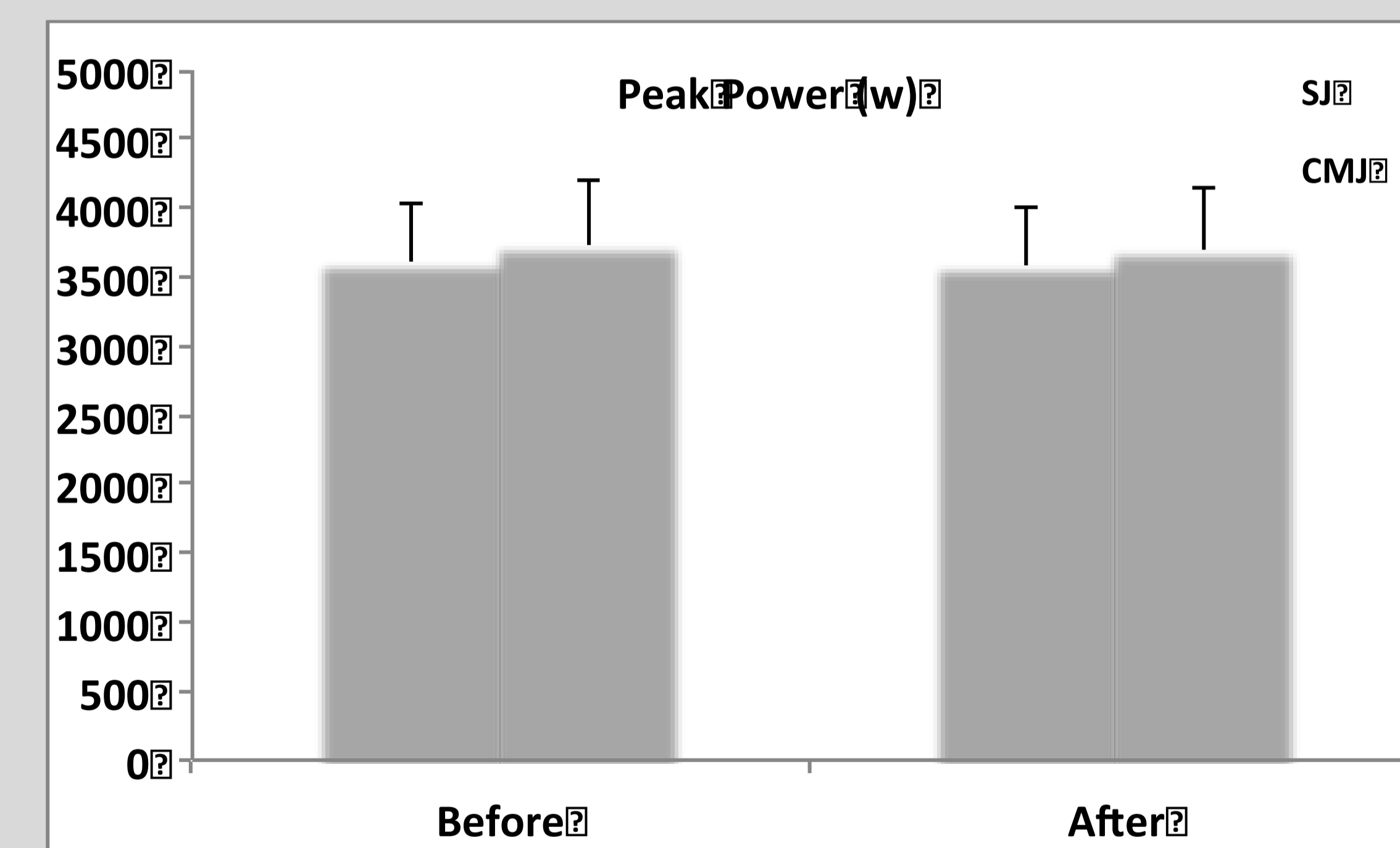


Figure 2. Peak power achieved in jump tests.

**CONCLUSION:** The present study suggests that CMJ and SJ Jump tests are useful as a criterion to determine the recovery of neuromuscular fatigue after Futsal matches in elite players and to use as a criterion to start raining at high intensity after matches.

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