

# ISOKINETIC KNEE STRENGTH DOES NOT SHOW SIGNIFICANT RELATIONSHIPS WITH YOYOIR2 AND SPRINT TIME IN MALE SOCCER PLAYERS

Nakamura, D. 1) & Suzuki, T.2)

1) Seikei Univ football club, Japan

2) St. Marianna University School of Medicine Hospital, Japan

Keywords: isokinetic strength, physical test, high intensity performance

## **Introduction**

Although both muscle strength of lower limbs and ability to repeat high-intensity running, are of very importance for modern soccer players, little information is available on the relationship between these two factors. The aims of study were to examine the relationship between lower leg muscle strength and Yo-Yo intermittent recovery test level 2 (YoYoIR2) performance and single 20-m sprint performance in semi professional soccer players.

## **Methods**

Twenty male semi-professional soccer players (age  $24.3 \pm 2.8$  years, height  $175.5 \pm 5.5$  cm, body mass  $70.8 \pm 6.3$  kg) were participated in this study. Leg muscle strength was measured by isokinetic dynamometer within 10 days before and after the measurements of YoYoIR2 and 20 m sprint time.

## **Results**

No significant relationship were seen between both absolute and relative peak isokinetic concentric knee extension and knee flexion torque of lower muscle strength and YoYoIR2, 20-m sprint time.

## **Conclusion**

In conclusion, the data indicated the possibility that strength performance evaluated isokinetic muscle strength of lower limbs were the limited contribution to YoYoIR2 performance and 20-m sprint time in semi-professional soccer players.