EFFECTS OF STRENGTH TRAINING ON AEROBIC AND ANAEROBIC POWER IN FEMALE SOCCER PLAYERS

Abstract
The purpose of this study was to determine the effects of a 12-week strength training programme on aerobic and anaerobic power in female soccer players. Twenty-four female soccer players (U-20) volunteered to participate in the study. The participants were tested with strength tests as well in aerobic and anaerobic power. 1RM bench press (BP), squat (SQ), leg extension (right leg – LER and left leg – LEL) and leg flexion (right leg curl – LCR and left leg curl – LCL) measured strength, while VO\textsubscript{2max} and 300y shuttle run test assessed aerobic and anaerobic power. A two-way ANOVA with repeated measures was used to determine pair wise effect. In addition post hoc procedure located difference between the means. Positive effects of strength training were determined in all tests. The largest effect was determined for the variable right leg curl (LCR) where the improvement was 10.7% as well as in the variable squat – 9.7%. After 12 weeks of strength training aerobic power of female soccer players has improved by 4.3% and anaerobic power by 2.8%. The data suggest that our 12-week strength training improved both the aerobic and the anaerobic power in female soccer players.

Key words: female soccer players, aerobic power, anaerobic power