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Effect of speed, agility and quickness on performance of junior tennis players

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Aim & Objective: The purpose of the study was to examine the effect of 4week SAQ protocol on agility and aerobic capacity in junior tennis players.

Methodology: Research was carried out on a sample of fifty healthy tennis players from the sports complexes (aged: 14.2±0.9; height: 160.6±6.2cm; weight: 57.3±5 kgs). The players were randomly divided into training group and control group. The training group received four weeks of speed, agility and quickness protocol three days per week and the control group performed their regular training under the direct supervision of the physiotherapist. The pre and post testing for the agility (t-test) and aerobic capacity (cooper test) was done at 0 week and after 4 weeks.

Results: The pre-test readings of t-test {training group (11.246±1.09) and control group (10.933±1.093)} and post-test readings were {training group (10.1712±0.93) and control group (10.6848±0.85)} which concluded a significant improvement (0.05). Similarly, with aerobic capacity, training group (24.3152±6.7 vs. 30.1176±8.1) and control group (22.9±6.54 vs. 23.7±6.6).

Conclusion: The study concluded that SAQ protocol can improve both the agility and aerobic capacity in tennis players.

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Role of core stabilization in athletic persons

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Clark (2000) reports that adequate core stabilization will improve dynamic postural control, ensure appropriate muscular balance and joint arthro-kinematics around the lumbo pelvic-hip complex, allow for the expression of dynamic functional strength, and improve neuromuscular efficiency throughout the entire kinetic chain. Ferreira et al (2004) stated that transversus abdominis is activated in anticipation of trunk and extremity movement to provide stability of the lumbar spine. They also stated that weakness or delayed activation of this muscle may directly affect local spinal stabilization. Darin T Leetun et al (2004) found that decreased lumbo-pelvic (core) stability has been suggested to contribute to the etiology of lower extremity injuries. John D. Willson (2005) found that leg injuries decrease core stability and vice versa. Anthony B Piegaro found that a combined core stabilization/balance-training program could be used to improve semi-dynamic balance, whereas core stabilization program or balance training program could be used to improve dynamic balance. Injury prevention is a primary goal of every athletic trainer, coach and athlete. Adequate core stabilization will improve dynamic postural control, ensure appropriate muscular balance and joint arthro-kinematics around the lumbo pelvic-hip complex, allow for the expression of dynamic functional strength, and improve neuromuscular efficiency throughout the entire kinetic chain. If the trunk is weak and poorly developed, it results in poor posture resulting in less efficient movements. Core stability mechanisms are: Neural subsystem; active subsystem; passive subsystem; thoraco lumbo dorsal fascia mechanism; hydraulic amplifier mechanism, intra-abdominal pressure mechanism and; foot-ball concept. Clinical assessment methods and core stabilization techniques will be updated.

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