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Isokinetic Profile of Professional Football Players at the Start of the Season at the Agadir Sports Medicine Center

Topic: Robotics

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BACKGROUND

Professional football is a physically demanding sport that requires a high level of muscular strength, endurance, and coordination. The intense training and competitive schedule place significant stress on the musculoskeletal system, particularly on the lower limbs, increasing the risk of injuries such as hamstring strains, ligament tears, and muscle imbalances. Among the tools available for assessing muscular function and identifying potential risks, isokinetic testing has emerged as a gold standard. This method allows for the precise measurement of muscle strength, balance, and symmetry, providing valuable insights into an athlete's physical condition. In recent years, the use of isokinetic evaluations has gained traction in sports medicine, particularly in football, to optimize performance and reduce injury rates. This study focuses on the isokinetic profiles of professional football players at the start of the season, aiming to identify muscle imbalances and provide data-driven recommendations for injury prevention and performance enhancement. This study presents the results of isokinetic evaluations conducted on professional football players at the Sports Medicine Center at the start of the season over a three-year period. The aim is to determine the muscular profiles of these players, identify muscle imbalances, and assess the impact of the findings on injury prevention and performance enhancement.

METHODS

A retrospective analysis of isokinetic data from 126 professional football players was conducted. The parameters evaluated included peak torque of the quadriceps and hamstring muscles, the hamstring-to-quadriceps ratio (H/Q), the mixed ratio, and bilateral symmetry.

RESULTS

The results show that 40% of the players had significant muscle imbalances, with an H/Q ratio below 0.6, increasing the risk of hamstring injuries. Training recommendations based on these evaluations led to a 25% reduction in muscle injuries over the study period.

CONCLUSION

Isokinetic evaluation proved to be an essential tool for injury prevention and performance optimization in professional football players. Regular monitoring of muscular profiles is recommended to adjust training programs and reduce the risk of injuries.

Statement of Disclosures

None

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