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Development of Prediction Equation for Assessment of Footballer's Ankle in Professional Football Players

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ABSTRACT

Introduction: Ankle impingement is a clinical condition characterised by chronic pain and limited range of motion in the ankle joint due to soft tissue or osseous abnormalities. It commonly affects athletes and individuals with a history of ankle trauma. There is paucity of research in examining ankle impingement and potential risk factors.

Aim: This study aims to fill the gap between the risk factors and lack of clinical guidelines.

Methods: The participants enrolled in the study were assessed; to be placed in the symptomatic group, the subjects are required to have a positive Ankle Impingement evaluation and the absence of other symptoms of exercise-induced ankle pain. 240 participants in case and control group were compared and assessed using linear progressive analysis and univariate and multivariate analysis.

Result: Biomechanical abnormality of ankle excursion, femoral anteversion, hip excursion, knock knees OR bow knees, joint hypermobility, foot posture, Q-angle and Leg length discrepancy. The analysis revealed that lack of ankle dorsiflexion, hip eversion, joint hypermobility, exaggerated foot posture, extreme values of height of arches and large Q-angle predispose an individual to injury. The present study also highlights, statistical significance was established in Q angle value and femoral anteversion.

Conclusion: Various intrinsic parameters of anthropometric measurements, lower limb alignment, range of motion, functional performance, foot posture index were assessed, however, the study concluded that loss of dorsiflexion and lower limb alignment are primary risk factors.

Keywords: Ankle impingement, Chronic ankle pain, Markers of biomechanics of lower limb, Anthropometry, Ankle sprain, Ankle instability

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