A KINEMATIC STUDY OF INSTEP SOCCER KICK AT CONTACT PHASE

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ABSTRACT

Soccer is a worldwide sport enjoyed by many as a leisure activity as well as a competitive sport. For soccer kicking, the movement data at ball contact could suffer from such problems, which would affect true kinematics of lower limb motion during ball contact phase. Ball contact technique is essential for the success of instep soccer kicking. The purpose of this study was determining the selected kinematic parameter of instep soccer kick at contact phase. The ninetynine soccer players were randomly selected from High level (Nation/Intervarsity level), Medium level (State/College level) and Low level players (District/Regional level). The age range was 14 to 25 years of subjects. In order to maintain homogeneity only right-footed kickers were selected for the study. The videography technique was adopted for kinematic analysis of instep soccer kick. The subject's kicking motion was recorded using JVC HD video cameras in a field setting. The cameras were set-up on a rigid tripod. The best trail kicks were spotted and edited for analysis. The Movement Analysis Software (MAT) was used to analyze the soccer kick. SPSS Software used for to calculate Analysis of Variance (ANOVA) with Least Significant Difference (LSD) post hoc test to determine the means significant difference between different level players during soccer kicks. The variations of the segment kinematics amongst different level of players were responsible for the significant differences during contact phase instep soccer kicks. The result indicated for joint angles of instep kick at contact phase for different level male soccer players showed significant difference for ankle and knee joint angles. Further it revealed that at ankle joint angle- high and medium level players showed significant mean difference. For the knee joint angle- high and medium; high and low level players showed significant mean difference.