World Academy of Science, Engineering and Technology
International Journal of Sport and Health Sciences
Vol:14, No:03, 2020

Survey of Epidemiology and Mechanisms of Badminton Injury Using Medical Check-Up and Questionnaire of School Age Badminton Players

Authors : Xiao Zhou, Kazuhiro Imai, Xiaoxuan Liu

Abstract : Badminton is one type of racket sports that requires repetitive overhead motion, with the shoulder in abduction/external rotation and requires players to perform jumps, lunges, and quick directional changes. These characteristics could be stressful for body regions that may cause badminton injuries. Regarding racket players including badminton players, there have not been any studies that have utilized medical check-up to evaluate epidemiology and mechanism of injuries. In addition, epidemiology of badminton injury in school age badminton players is unknown. The first purpose of this study was to investigate the badminton injuries, physical fitness parameters, and intensity of shoulder pain using medical check-up so that the mechanisms of shoulder injuries might be revealed. The second purpose of this study was to survey the distribution of badminton injuries in elementary school age players so that injury prevention can be implemented as early as possible. The results of this study revealed that shoulder pain occurred in all players, and present shoulder pain players had smaller weight, greater shoulder external rotation (ER) gain, significantly thinner circumference of upper limbs and greater trunk extension. Identifying players with specific of these factors may enhance the prevention of badminton injury. This study also shows that there are high incidences of knee, ankle, plantar, and shoulder injury or pain in elementary school age badminton players. Injury prevention program might be implemented for elementary school age players.

Keywords : badminton injury, epidemiology, medical check-up, school age players
Conference Title : ICSMES 2020 : International Conference on Sport Medicine and Exercise Science
Conference Location : Tokyo, Japan
Conference Dates : March 23-24, 2020