

EPIDEMIOLOGY OF COLLEGIATE AMERICAN FOOTBALL INJURIES: INJURY REPORT FOR 10 YEARS, 1999 THROUGH 2008

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Keywords: American football, injury, injury prevention

Introduction

American football is an intense contact sport, therefore a lot of injuries occur in both games and practices. Dick et al. reports that American football is one of the highest injury incidences in sports. Then the rule changes and modifications in American football in the USA, the original country of the American football, have been changed to reduce injuries based on longitudinal studies. However there are few longitudinal studies related American football injuries in Japan. Therefore we should conduct the longitudinal study to discuss and make appropriate injury prevention strategies to reduce injuries.

Methods

Subjects are 523 American football players of the Univ. of Tsukuba from 1999 to 2008. American football-related injury data were collected by student trainers directly by hand.

Results & Discussion

790 collegiate American football-related injuries were reported. The game injury ratio was more than five times higher than the practice injury ratio (34.6 versus 6.6 injuries per 1000 athlete-exposures). The common types of injuries were ligament sprain (28.9%), muscle-tendon unit strain (17.9%), and contusion (7.5%) in order. The common body parts of injuries were knee (14.4%), ankle (13.8%), and thigh (13.4%). Lower extremity injuries were characteristic in American football and also this result supports that of previous studies. Junior students (32%) have the highest risk of injuries because most players start playing football after entering the university and they experience a real game in their junior year. 「Gradual」(19.0%) is the most common mechanism of injury and followed by 「tackled」 (14.7%) and 「tackling」 (11.5%). Players seem to have microtrauma from tackling, blocking, and running in daily practices.

Conclusion

We confirmed the tendencies of collegiate American football-related injuries. That is the game injury ratio is much higher than the practice injury ratio. Also players have microtrauma from tackling, blocking, and running in daily practices. Therefore it is important to make injury prevention strategies based on this kind of longitudinal studies to reduce injuries.

References

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