The Study on Sports Injury of Coaches in Boxing Training Environment

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Abstract

The aim of this study was to investigate and analyze causes, times, regions, types, situations, first aid and treatment conditions of the injuries the boxing coaches. This study was conducted with a total of 80 subjects, who are currently active boxing coaches for middle school, high school, university, professional and national division. The tool used to investigate the nature of sports injuries of the boxing leaders based on the training environment was questionnaire, which is composed of 39 questions on age, sex, social background including leadership career, cause and time of injuries during training, type of region of injuries, injury regions based on type of training, first aid and treatment for injuries during training, and prevention of injuries. The questionnaire utilizes self-administered method. First, the form of training that exhibited highest injury rate during training was sparring, where attack type that most likely led to injuries was powerful hook. Second, the region of injury that exhibited highest injury rate during training was ligament injury, where upper limb area was more frequently observed than lower limb area. Third, most preferred emergency prevention method was ice packaging, and the most preferred hospital for treatment was western medicine based hospitals. Fourth, most of the coaches generally performed stretching before and after trainings. 16.25% of the coaches reported that they did not wear protection gears during training. In conclusion, this study that focused on causes, types, regions, first aid and treatment conditions of injuries for the coaches based on the training environment could aid in planning efficient measures for sports injuries of the boxing coaches and provide basic information to formulate treatment measures after injuries.

Key words: Injury, Boxing coach, Training Environment

Introduction

Boxing has been popular for many centuries among spectators and boxers; however, injuries also accompanied the popularity from the beginning. Although critical neural damage resulted from boxing has not been discovered, the correlation in boxers has been reported through many studies (Heilbronner et al., 2009). King(2009) also commented that, though there does not exist any unique boxing diseases, boxing is one of the sports that are best represented by high potential for injury evoked by training equipment, coaches, and boxers themselves. Especially, amateur boxing has high correlation with acute nerve cell damage. However, since researches on probability of nerve cell damage among amateur boxers are rarely carried out (Zetterberg et al., 2006), it is recommended that researches coming from various perspectives for the prevention of injuries among boxers be conducted. Sports injuries are caused from lack of skills, excessive training, mental and physical state of
tension, lack of attention, lack of warm-up exercises, and foul or aggressive actions during training or match, and the nature of the injury is related to physical activities and therefore unique injuries are observed for different sports. Among these sports injuries, injuries from martial arts sports account for 10.2% of all sports injuries (Tenvergert, 1992), and boxing is observed to have 23.6% injury rate (Zazryn et al., 2009). Similarly, since boxing requires consistent contact with opponents and high-intensity training, coaches as well as boxers themselves are also exposed to the danger of many injuries based on training environment. Because boxers cannot fight with their full capability and leadership of coaches are questioned when the boxers are injured, injury only results in damage of their careers regardless of outstanding state of facility and ability of boxers coaches. Bianco et al. (2007) showed that adequate amount of exercise and training is related to increasing expectancy of satisfactory life, and thus boxing may decrease expectancy of satisfactory life as it causes injuries from intentional, repetitive impacts.

Researches on the injuries of boxers due to the nature of boxing are continuously carried out (Ohhashi et al., 2002; Zazryn et al., 2009; Vent et al., 2010), but there is no research case where coaches, who are exposed to unexpected high probability of injury during training, were the subject of injury research in both domestic and international field.

The athletic performance of boxers can largely be affected not only by the conditions of boxers themselves but also by the state of health of coaches. Leaders greatly influence by facilitating communication, boosting morale, increasing win rate, enhancing teamwork, and improving athletic performance. Also, it is a critical factor to exercise technical, action influence in order to achieve the goals of the boxers.

From these perspectives, it is important to understand that sports injuries, which are perceived to be usually specific to athletes, can be observed in coaches as well. In the context of boxing, sports injuries of coaches occur more frequently compared to other sports as coaches are more involved in actual training environment through mass boxing(a type of mutual shadow boxing in which boxers face each other without direct hits) and sparring. In addition, as coaches are engaged in training by taking direct punches from boxers during punching mitt training, a representative technical training in boxing, severe damages in wrists, elbows and shoulders could be resulted. Also, with excessive trainings, these damages can potentially be developed into chronic damages, and therefore there are frequently many cases where coaches end their careers due to such damages. Recently, there is an increasing attention being paid to stability of boxers, but the nature of typical sports injuries or severe damages from boxing matches is yet to be clearly investigated (Vent et al., 2010). Despite the fact that more attention should be paid to health and safety of boxing coaches, it is difficult to find any researches on the injuries of the coaches. Hence, this study aims to investigate and analyze causes, times, regions, types, situations, first aid and treatment conditions of the injuries the boxing coaches encounter in order to provide basic information utilized to create basis for sports injury prevention and treatment measures for future boxing coaches.

Method

Subjects

This study was conducted with a total of 80 subjects, who are currently active boxing coaches and supervisors that participated in the National Athletic Meet as leaders for middle school, high school, university, professional, national division representatives from respective cities and provinces. The subjects understood the objective and the procedure of this study and provided written consents, and instructions were provided to encourage the subjects to respond in full and prevent them from omitting information. The overall frequency of the subjects participated in this study is shown in <Table 1>.