



Importance of Injury Prevention and Management for Youth Handball Athletes

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Dear Editor-in-Chief

Handball requires a high level of physical strength enough to perform more than 825 high-intensity movements, and is a sport that requires high-intensity physical efforts with its special ability to create and repeat intense contact and explosive muscle contraction (1). As such, handball is one of the sports with a high risk of injury while having various high-intensity movements.

In handball games with repetitive jumps, quick turns, and strong body checks, injuries have a significant impact on performance degradation. Because of a survey of handball college players, the risk of injury was higher in the order of ankle, knee, and shoulder, and the risk of injury was higher in women than in men (2). Acute injuries were most common in lower body such as knees, and ankles; however, overuse injuries occurred in whole body including lower body such as back and pelvic region, arms, and shoulders (3). A study reported the risk of knee injury, which is known to be due to jump and rotational movements due to the nature of handball (4). In particular, young handball athletes who are growing are at greater risk of injury due to excessive movement and/or overuse.

The seriousness of sports injuries may be explained by six criteria following: 1) disposition of

sports injuries; 2) duration of treatment; 3) loss of time to participate in sports; 4) loss of time to working or practice; 5) enduring damage; and 6) cost (5). Considering these factors, it is important to identify which part of the injury is in order to prevent and manage the injuries of the athletes, and failure to prevent or manage in the early stages of injury will lead to a chronic transition and adversely affect performance (6).

The management of these injuries turns into chronic and adversely affects them, and chronic injuries could persist, especially in adulthood, due to the influence of sports injuries in childhood (7). In handball, which a team sport, individual injuries affect the entire team, so the management of individual players is very important. Injury management for youth handball athletes also affects the team's performance, and management is necessary because failure to prevent chronic injuries could greatly interfere with development and lead to deterioration performance due to continuous problems as an adult player.

It is very important to investigate risk factors for sports injuries in confirming and/or developing hypotheses about the mechanism of injury (8). However, in the previous studies, the survey of the injuries of youth handball athletes is insufficient.



In PubMed, used by researchers around the world, a search for 'youth (adolescent) handball player injuries' and 'children handball player injuries' resulted in 143 and 19 articles, respectively. About 162 articles were searched, but only 8 articles consisted of youth handball athletes. Moreover, the mechanism and injury site of the overall injury were not shown, and since only injury to a specific site (knee and shoulder) is concentrated. It is necessary to examine in more detail the injuries and diagnoses of youth handball athletes.

Therefore, more experiments and research are needed to investigate the injuries and diagnosis of youth handball athletes. The survey is expected to help young handball athletes improve their performance as well as prevent chronic injuries.

Conflict of interest

The authors declare that there is no conflict of interest.

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