

INJURIES AMONG PEOPLE WHO TRAIN HANDBALL

Paweł OSTROWSKI ^{A-F}

Faculty of Physical Education, University of Rzeszów

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- Physical fitness
- Handball
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Abstract:

The aim of this study was to analyze the causes of movement organs damage among people practicing handball. The group of respondents consisted of 60 competitors: 40 women and 20 men in the age between 20 and 35 years who train handball. The competitors responded to 19 survey questions regarding the damage of the musculoskeletal system. The collected results were analyzed and presented in the form of graphs and tables. The results of the conducted research may contribute to the limitation of the the injuries of handball players.

INTRODUCTION

Sports injuries are the most important issue in competitive sports, but they are also a common issue at the lower levels of advancement. Unfortunately, each sport discipline is characterized by a different range of risk factors and danger zones. In most cases, sports injuries relate to the musculoskeletal system, and their direct cause is a significant overload in the vicinity of joint and muscular structure. Injuries can arise as a result of one-off injury or as a sum of smaller overloads and micro-injuries that work for a long time. One of the main reasons for the occurrence of sports injuries are random events [Rehabilitacja w praktyce 2010].

Handball is counted as one of the most "traumatic" contact sports and is inherently associated with pain. There is a special risk of damage connected even with permanent damage to health. In fact, players are used to it. Everyone who has ever encountered this sport knows how easy it is to get an injury. It is possible to imagine, the danger which people practicing this sport professionally are in.

The vast majority of sports injuries are caused by the mechanical force. Often despite the injuries, athletes decide to play, giving their all, knowing the risk of such decision. Therefore, the occurrence of injuries is part of the athlete's profession.

Handball is included in the group of sports of a direct contact with the right to physical contact with the opponent, accordingly to strictly defined regulations. So it is a discipline where physical forces are applied, with personal contact limited by regulations [www.menis.pl].

The defender is able to carry out around 144 power duels with the striker and up to 20-22 times, he can block the throws on goal, which exposes the player to direct contact with the opponent or hit the ball. During the match, the handball player overcomes the distance of 5.6-6 km in average, excluding goalkeepers. In addition, during the game the player performs 94-102 passes of the ball at different distances, 8-14 throws per goal and 2-5 throws from the outline [L. Łatyszkiewicz et al. 1999].

Too frequent workouts are the most common training mistakes, called as overtraining syndrome. It comes to it as a result of an imbalance between training and leisure. Lowering, sometimes complete loss of sports form and an increase in the risk of injuries to the musculoskeletal system are the results of the overtraining syndrome. The overtrain is increasing the risk of injuries, usually as a result of adding up overloads and micro-injuries. It can also lead to the renewal of old and healed injuries, they can deepen old or new ones.

When the overtraining syndrome occurs, its treatment is quite difficult. Undoubtedly, the person with the syndrome must get rest. There is a very different recommended rest period, usually in the limit of 2 weeks to 6 months. The required rest should be combined with a certain degree of recreational activity[Mędraś M 2004].

When playing handball, the the body burden is variable. The muscles of the lower limbs, pelvic rim, shoulder girdle and upper limbs, in particular the limbs are the most heavily burdened[L. Magiera et al. 2004].

There is no question that in order to professionally treat injuries and sports injuries, you need to have extensive knowledge and experience, both medical and sport one. A lot of damage comes from the fact that doctors from outside of sports circles allow players to prematurely return to the field. Not knowing the magnitude and range of physical efforts, the doctor sometimes agrees to undertake training without knowing that the musculoskeletal system training load as well as other disciplines contribute up to 95% to injuries and injuries to the musculoskeletal system[A. Dziak 2002].

Each athlete is focused on getting results, it happens that he is often subjected to a very strong pressure of the environment which can lead to the fact that often despite the existence of minor injuries or overload pain he participates in intense workouts, competitions or competitions. Then accumulation of microtraumas and prolonged inflammation occurs, which leads to inevitably serious injuries in the muscles and joints.

In summary, the most important person for an injured athlete is a doctor, his correct diagnosis and treatment recommendations.

OBJECTIVES, RESEARCH MATERIALS AND METHODS

The aim of this article is to try to explain the causes of motion organ damage among people practicing handball.

The group of respondents consisted of 60 competitors: 40 women and 20 men in the age range from 20 to 35 years, belonging to various classes, including the first league and top league. In order to collect the research material, a questionnaire containing 19 questions regarding the research topic was used.

RESULTS

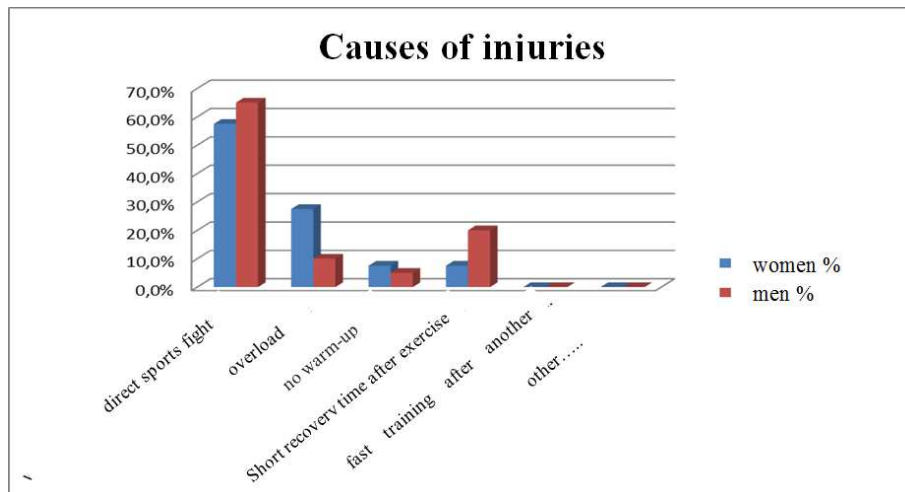


Fig. 1. Percentage distribution of injuries in division into women and men.

The diagram above shows that the highest percentage of injuries arises in the . Among the studied women, 57.5% are affected in this way, and 65% in men. Another cause of injuries with the highest percentage share is, among women, overload (27.5%), while among men, short recovery time after exercise (20%). Fast training after another injury does not affect the trauma of the subjects.

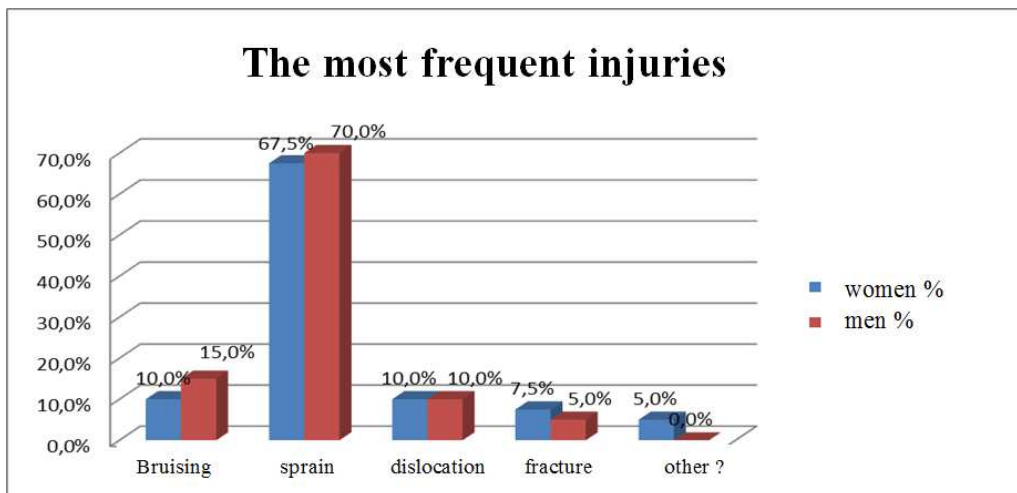


Fig. 2. Percentage distribution of the most common injuries divided into women and men.

The above diagram shows that the most common injuries are sprains. The percentage share of sprains among women is 67.5%, in relation to men, where the value reaches 70%. Another common injury is bruising, which is 10% in women, and 15% in men. The difference between the frequency of injuries caused by sprains and other injuries is very noticeable.

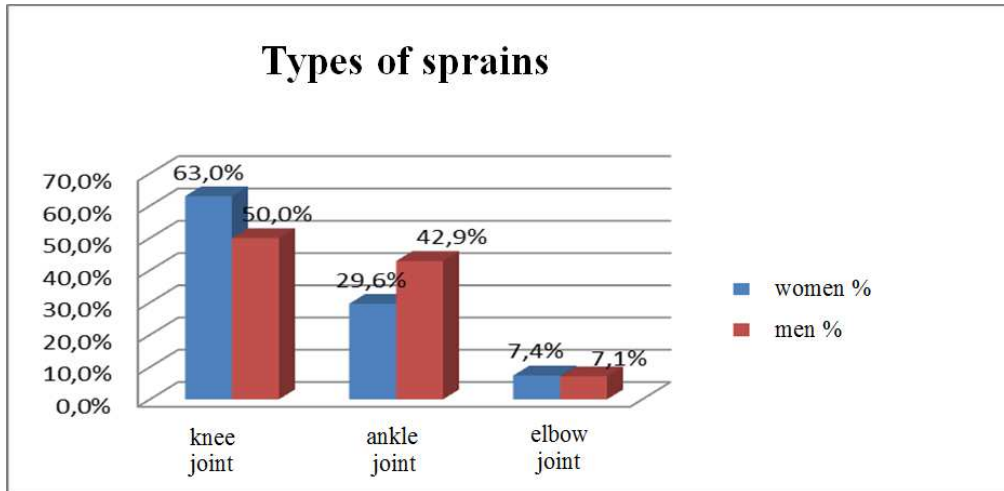


Fig. 3. Percentage distribution of the types of sprains divided into women and men.

Based on figure 3, it can be stated that knee joint is the most susceptible for sprains, both among women (63%) and men (50%). A slightly smaller percentage share, due to the type of sprains among men, is ankle sprain (42.9%). In contrast, in women, the difference is noticeable, reaching 33.4%. The elbow joint is definitely the least vulnerable to sprains.

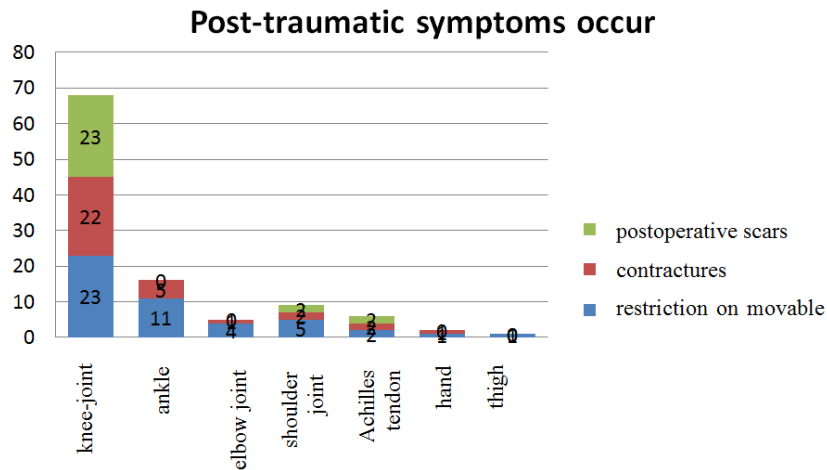


Fig. 4. Distribution of post-traumatic ailments due to the area of occurrence.

Considering figure 4, it can be concluded that in the case of damage to the knee joint, the shoulder joint and the Achilles tendon, both postoperative scars, contractures and restrictions of movement arise. It is worth noting that there are no postoperative scars among other areas of injury.

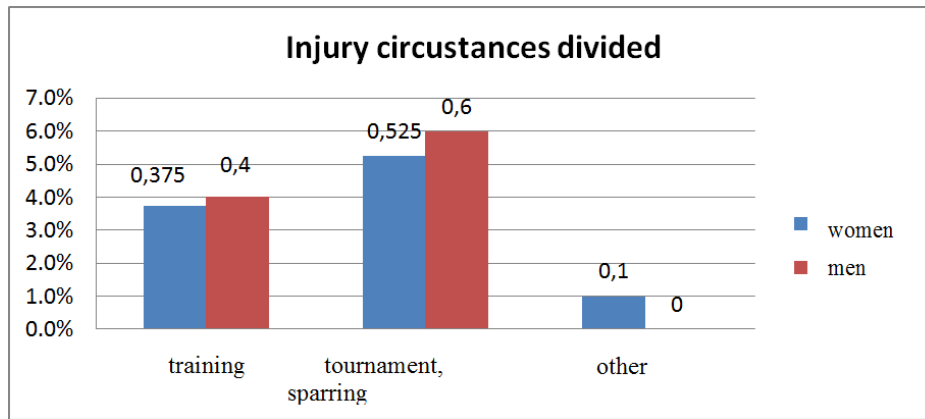


Fig. 5. Percentage distribution of injury circumstances divided into women and men.

The above diagram shows that injuries usually occur during tournaments, sparring and matches, the percentage share among women is 52.5%, while among men 60%. During the injury training, 37.5% of women and 40% of men experience respectively.

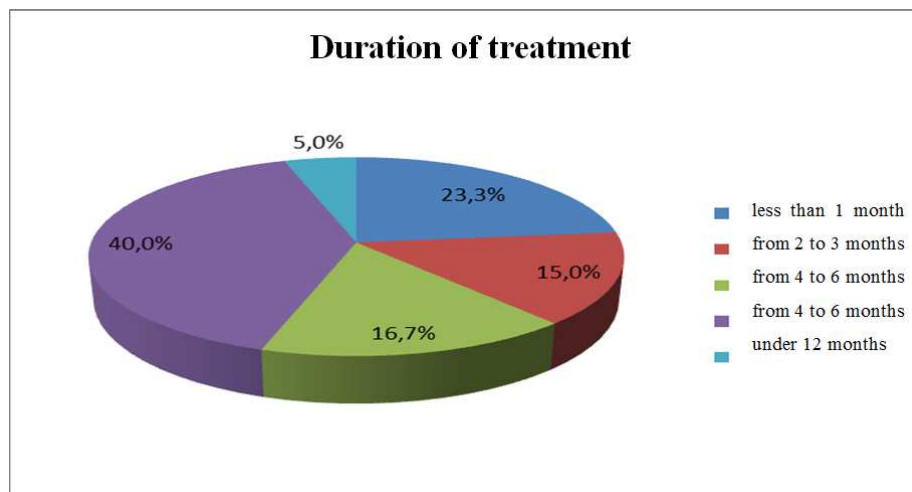


Fig. 6. Percent division of the duration of damage treatment divided into months.

Based on figure 6, it can be concluded that 40% of respondents treated the injury from 7 to 12 months. The next most frequent time of treatment among the respondents was a period of less than one month. Convalescence over 12 months affects only 5% of respondents.

SUMMARY AND CONCLUSION

On the basis of the available literature on the injuries of the motor system among players practicing handball as well as on the basis of their own research, the following conclusions were made.

1. The most frequent body injuries among handball players are mainly sprains of the knee and ankle joint.
2. Direct contact with the opponent (result of direct sports fight) is the most common cause of musculoskeletal injuries.
3. Often, the existing rules on the course of the game, unfortunately, allow situations that pose a threat of injury.
4. Injury causes local or general changes in the human body. There are complications in the treatment of injuries to the musculoskeletal system. According to the studies carried out, restrictions on movable property are the most frequently mentioned complication.

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Czasopisma:

1. Czasopismo, „Rehabilitacja w praktyce” 3/2010, s. 40