



Sports Injuries Prevention and Treatment

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Abstract

Athlete injuries are the biggest problem of athletes today. Injuries can cause athletes to suffer financial and moral losses and sometimes even take long breaks in their sports life and end their sports life.

The aim of this study is to examine the studies in the literature on athlete injuries, prevention and treatment of injuries, to indicate the most common injuries, to examine treatment methods and to bring together the necessary measures to prevent injuries.

Keywords: Sports Injuries; Treatment; Prevention

Introduction

Disability is defined as physical disabilities, insufficiencies and certain traumas that prevent individuals from performing their motor functions, sometimes temporarily and sometimes permanently. Some cases of disability are encountered directly or indirectly in sports activities. The structure of these injuries varies according to the sports activity being done. In general, bones, organs and soft tissues are damaged in the injuries experienced [1].

With the treatment programs implemented after these injuries, it is aimed to relieve the pain of athletes, to enable them to regain their mobility and to resume sports in a healthy way. For this reason, the factors that cause disability should be eliminated first. In this process, first of all, it should be determined that there are sports activities in the background of the disability [2]. For this reason, it is very important to have basic information about the sport in which the disability occurred in order to understand the disability story correctly and to apply the correct treatment program.

Trauma, which is one of the concepts within the scope of disabilities that occur as a result of sports activities, is expressed as local injuries that cause physical and mental

problems on individuals and cause damage to the muscular system, bones, tissues or organs of the individual. Many of the injuries encountered in the competitions are experienced as a result of trauma. Here, by the expression wound, tissue damages occurring under or above the skin are understood. Pain or loss of function may occur as a result of injuries. It is possible to evaluate these wounds in two classes as open wound and closed wound. The most important risk of open wounds is the emergence of the possibility of infection [3]. For this reason, it would be healthier to perform medical interventions quickly on open wounds.

Injury is expressed as the condition that occurs before, during and after birth and that the organs have difficulty in performing their functions [4]. In general, disability is the limitation and deficiency that individuals experience in the face of a problem they experience during an activity that they can successfully perform under normal conditions. The injuries experienced within the scope of sports activities can be temporary or permanent or have a structure that increases their impact [2]. It is possible to express the state of disability that may occur in the continuation of these disabilities or develop due to different congenital reasons, briefly, the failure to fulfill the functions that occur as a result of the disabilities in line with the age, gender, sociological

and cultural values of the individuals [5].

All damages that occur in sports activities are collectively referred to as sports injuries. Environmental and personal factors are effective in the emergence of sports injuries. Statistical data on sports injuries do not give very healthy results, since many injuries are solved within the teams and normal medical records are not passed. In order to be able to talk about the full treatment of injuries caused by sports activities, athletes should be able to continue doing sports as before the injury [6].

Medical interventions performed after the injuries experienced by the athletes have a very important place in the recovery and recovery processes of the athletes. So much so that if these processes are not managed correctly, the athletes are not psychologically ready for the return processes. For this reason, emotions of athletes should be analyzed carefully before and after injury [7]. Adapting the results obtained as a result of these tests to the treatment processes can positively contribute to the return of athletes in a much healthier way.

Regardless of the preferred sports branch, every athlete is likely to encounter injuries of different degrees throughout their sports life. Here, it is not important for athletes to engage in contact sports or team sports. Although it has the characteristics of the branch of interest, every athlete faces the risk of injury. There are many applications that need to be done to reduce the possibility of encountering sports injuries. However, the most important of these is the training that can reach the physical competencies required by the sports branch. In this context, trainers and athletes actively working in sports should definitely exercise regularly [8].

“Trauma” is one of the most frequently used concepts in a sports injury story. Physical deformations that occur once or are continuous in the tissues of individuals, whether external or internal, can be expressed as trauma. First of all, there are responsibilities that organizations and sports clubs should undertake in order to prevent injuries caused by traumas and later due to some internal factors and to keep the negativities that may arise at minimum levels [8]. It is possible to evaluate the measures to be taken to prevent athlete injuries in three groups [9].

Field

The structural features and quality of the ground in sports areas are very effective in the emergence of injuries. It is possible to prevent possible injuries by correcting uneven, hard soil floors, gym floors where faulty materials are used, and floors that cause athletes to experience balance problems because they are too wet.

Equipment

Materials used during sports activities are very important in terms of injury risk. Athletes' clothing must be suitable for seasonal conditions. It is very important for athletes to use various protection in contact sports. In many sports branches, the athletes can use protection and clothing suitable for the sports they do.

Individual Precautions

In order to prevent injuries in sports activities, measures should be taken directly against the athletes themselves. In this direction, it is very important for athletes to pay attention to their diet and sleep patterns. The possibility of injury due to lack of condition and attention increases in athletes who do not pay attention to their own life. In addition to these, athletes should pay attention to the warming and cooling processes before and after the activity and should know that the possibility of injury increases if these exercises are not performed.

The most valid first aid method in sports injuries is “RICE”. This was created from the English initials of the words resting, cold mobilization, compression, elevation [10]. It is possible to list this method in detail as follows [11].

Ice

Applying cold to the injured area is a basic treatment method. With the cold, edema and pain are reduced, the muscle spindle is stimulated and the nerve conduction velocity is triggered. At the same time, the metabolic requirement of the injured place can be minimized by resolving the muscle spasm.

Compression

It refers to the application of local pressure. In addition to cold, it is used to stop bleeding and control edema. Elastic bandages and suitable pads should be selected.

Elevation

It is practiced to control the edema that has developed after injury. The stacked area is taken from the heart level.

Returning to training or competitions may cause injury again. For example, although athletes recover physically, if they start training, they may worry about injury again. This causes stress in them [12].

Previous injuries and disabilities can prevent the person from forgetting this experience and becoming mentally ready.

This causes the risks to be seen as high, the self-confidence to decrease and the development of fear against risky conditions in the sports environment. The most important issue for athletes who have suffered from sports injuries is to be able to return to sports ready again. In addition to the athlete, people around the athlete such as family, supporters and coaches are waiting for the end of the injury. Although there has been a significant shortening in this process with accelerated new rehabilitation programs, a certain amount of time is required for the traumatized tissues to recover fully. This shows that it is not appropriate to go below a certain limit [13].

According to current opinions, it is thought that the constant velocity contraction (isokinetic) measurement values should reach 90% power compared to the healthy side in order to make the decisions of athletes to return to the field [14]. Then comes the tests in the field and the evaluation of the training performance. Here, the doctors in the team have serious duties. The doctors in the team can prevent the occurrence of injuries in sports with some protective measures. In addition, injured players have an active role in returning to the field [15].

In addition to the team doctor, the opinion to be given by the trainer is also important. Since the athletes need to be prepared spiritually, this duty is also the coach. If imbalance, swelling and pain are not observed during the preparation period and if the athlete is motivated, it can be welcomed to return to the field. An appropriate rehabilitation should also be made after the operation or injury. Starting training early or trying to reach physical fitness status in a short time can cause recurrence of injuries (Yıldız and Göçgeldi, 2002). This situation can cause a permanent, serious disorder and carry risks until quitting sports. Recovering the general condition of the body is as important as re-strengthening the place of disability [15].

Conclusion

The aim of this study is to compile the results obtained from the studies in the literature by compiling the studies on athlete injuries, prevention of injuries and treatment of injuries.

Studies in the literature present findings that the number of sports injuries or injuries in various sports branches is increasing day by day. It is concluded that 4% of these injuries or injuries required the transfer of athletes to the hospital [16]. For this reason, sports injuries or injuries are considered as a public health problem in many countries [16]. Physical fitness and physical competence are important factors that can prevent injuries and injuries in sports [17]. Due to the incentives for women's participation in social life,

there is an increase in the participation of young women in sports with a license. Injury or injury rates of young women may be similar to men [18].

In Kanbir's study, he stated that the sports branches that have the most injury risk are football, American football, basketball, athletics and wrestling [19]. In the study conducted by Magnussen et al., It was found that 42% of those who were injured or injured in sports were football and 26% were handball [20]. In Yılmaz's study, it was stated that most of the sports branches where injury or injury is experienced are observed in sports where physical interventions are also possible [21]. In the same study, it was concluded that the branch of volleyball is the sports branch with the least injury. Ülkar et al. Found that 23.3% of children who applied to polyclinics for sports injuries were football, 17.2% basketball and 14.5% volleyball [22].

In Yıldız's study on footballers playing in the amateur league, it was stated that 72.4% of the injuries were experienced during the match, 12.4% in training and 15.2% in unofficial matches [23]. In Gasim's study, he stated that 52.9% of sports injuries or injuries occurred during training and 29.4% during the match and stated that the reason for this situation was overloading and under-heating [24].

While there are studies showing that warming up exercises before the competition or training do not contribute to the performance of the athletes, some other studies have stated that the warm-up exercises before the competition or training have a positive contribution to the performance. However, there is an acknowledgment that warming up can prevent muscle injuries and tears that may occur during competition or training [25]. In the study conducted by Taşkın in Konya province, it was determined that warming up exercises performed before training or before the competition can prevent possible sports injuries or injuries, increase the anaerobic resistance of the athletes and increase the efficiency provided by the athlete [26].

As a result of the results obtained, in order to prevent injuries;

- Athletes should take extra protective measures against their injuries.
- The use of warming creams should be reduced or, if creams are used, more attention should be paid to active warming in order to increase muscle blood flow.
- Athletes with previous sports injuries should be more cautious about other modifiable factors that pose a risk of injury, as they have a high risk of injury.
- Athletes should improve their physical fitness characteristics such as anaerobic and aerobic strength and flexibility.

References

1. Bağrıaçık A, Açak M (2006) Sports Injuries and Rehabilitation. Istanbul: Morpa Publications.
2. Aydın T, Yıldız Y, Kalyon TA (2000) Sports injuries, Ankara: Gata Publications.
3. Griffith W, Erdoğan Ş, Sarı Z (2002) Sports Injuries guide, Istanbul: Birol Publishing House.
4. Kanbir O (2005) Health Awareness and First Aid in Sports. Bursa: Ekin Publishing House.
5. Binnet M, Armangil M (2010) Concepts of sports injuries, Turkey Clinics; Istanbul. Birol Press Publishing 3(1): 528.
6. Teko Ş (2003) Sports Nutrition, Sports Injuries and Sports Health.
7. Kirişçi İ (2011) Types of injuries seen in individuals who do team sports and examination of these injuries according to various variables (Bursa example). Master Thesis, Sakarya: Sakarya University, Institute of Educational Sciences.
8. Ergen E (2003) Council of Europe Meeting on Sports Injuries and Prevention. Journal of Sports Medicine 21(2): 63-66.
9. Kalyon TA (1997) Sports Medicine, Ankara: Gata Printing House.
10. Griffith W (2003) Sports injuries guide, Istanbul: Birol Publications.
11. Yıldız Y Göçgeldi E (2002) Sports Injuries and Prevention. TAF Preventive Medicine Bulletin pp: 5-7.
12. Kantos AP (2004) Perceived risk, risk taking, estimation of ability and injury among adolescent sport participants. Journal of Pediatric Psychology 29(6): 447-455.
13. Sakallı FHM (2008) Injury and risk factors of athletes in sports. Isparta: S.Demirel University School of Health Sports Sciences Department 3(7): 143-154.
14. Ünal M (2010) Prevention of Sports Injuries and Tasks of Team Physicians in Returning to Sports Activities.
15. Özdemir M (2004) Prevention and Rehabilitation Principles in Sports Injuries. Konya: Cartoon Bookstore.
16. Petridou E, Kedikoglu S (2003) Sports injuries among adult in six european union countries. Eur J Trauma 29: 278-83.
17. Kalyon TA (2000) Sports medicine, athlete health and sports injuries, Ankara: Gata printing house.
18. Loud KJ, Micheli LJ (2001) Common athletic injuries in adolescent girls. Curr Opin Pediatr 13(4): 317-322.
19. Kanbir O (2001) Health Awareness and First Aid in Sports, Bursa: Etkin Kitapevi.
20. Magnussen RA, Granan LP (2010) Cross-cultural comparison of patients undergoing acl reconstruction in the United States and Norway. Knee Surg Sports Traumatol Arthrosc 18(1): 98-105.
21. Yılmaz Ş (2011) Examination of sports injury frequency, risk factors and formation patterns of students (14-17 years old) in secondary education institutions. Master Thesis, Isparta: Süleyman Demirel University, Institute of Health Sciences.
22. Ülkar B, Güner R, Ergen E (2002) Characteristics of injury in physically active children and adolescents. Antalya: 7th International Sport Sciences Congress.
23. (2009) Investigation of the frequency and causes of injuries seen in players playing in the amateur football teams of Yıldız M. Afyonkarahisar province. Master Thesis, Afyon: Afyon Kocatepe 86 University, Institute of Health Sciences.
24. Gasim ZK (2008) Investigation of injury zones and reasons in Greco-Roman and freestyle (Ankara province example). Master Thesis, Ankara: Gazi University, Institute of Health Sciences.
25. Kayserilioğlu A (2006) Protection from sports injuries. Turkey Inter Clinic J Med Sci 2(27): 72-80.
26. Taşkın H (2002) The effect of active and passive (massage) warming on anaerobic power. Master Thesis, Konya: Selcuk University, Institute of Health Sciences.

