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Types and circumstances of injury occurrence at competitors practicing football

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Key words: sport, footballers, injuries

Abstract

Introduction

It is believed that football injuries account for up to 3% of all injuries that requires hospitalization. Often the cause of accidents is brutal and incompatible with the game.

Aim

The aim of this study was to determine the prevalence of sports injuries in football competitors in group of players from Złotoryjski Klub Sportowy.

Material and methods

The research material was a group of 25 male trainees actively football. The respondents were men aged 16 to 38 years old. Players train average 3 times a week for 90 minutes. In research was used the questionnaire of diagnostic sounding. The answers of the respondents were divided into categories and analyzed statistically.

Test results

In ZKS Górnik Złotoryja team the most common injuries occurred on incorrectly prepared grass pitch, said the vast majority – 75%. In studied group the most common injury was sprain ankle which suffered 16 respondents which gives 41%, other suffered of back pain 13%, 11% suffered of hip-joint, 10% suffered of other injuries such as head injuries. Among other injuries, respondents mentioned: twisted knee-joint, twisted wrist, breaking shoulder, back pain, meniscus damage.

Conclusions

1. Players in the vast majority suffered injuries of musculoskeletal system.
2. Due to nature of football the most vulnerable to injuries were lower limbs.
3. The most common injuries in surveyed group were sprains and bruises in lower limbs.
4. Among the circumstances in which players suffered injuries pointed on overtrain and direct clash with the opponent. Among technical reasons the most pointed was improperly prepared football pitch.

Admission

The origins of many ball games date back to antiquity. The modern English football promoted the end of the nineteenth century, and it quickly gained popularity around the world. This sport occupies an important place among all team sports, both in terms of its mass cultivation and availability. The nature of the game creates a quite high risk of accidents. Mass practicing this sport makes that the number of injuries is estimated at about 50 - 60% of all sports injuries. It is believed that football injuries account for up to 3% of all injuries that requires hospitalization. In football, we can distinguish many factors that contribute to trauma, such as: direct nature of the game, bad pitch surface, weather conditions, poor technical training of footballers. Often the cause of accidents is brutal and incompatible with the game. The increased competition in sports makes that current athletes exploits oscillate at the body strength limit. This contributes to occurrence of multiple injuries in motion organ at players resulting in the need for breaks in training, which has a negative impact on their results. Playing football is associated with high mobility in both general and special. Within the first dominates strength and speed. Both of these features complements strength and jumping ability and the most motor coordination. Within the second dominates technique and tactics. Technique, which is the player's skills consists of the elements performed by various parts of the body, especially lower limbs. In contrast, the basic elements of tactic, such as attack and defense are similar to those used in other team sports. The requirements posed by modern football for players are getting bigger. Unfortunately, it is connected with the presence of an increasing number of injuries at competitors practicing this sport.

Aim of the study

The aim of this study was to determine the prevalence of sports injuries in football competitors in group of players from Złotoryjski Klub Sportowy. According to aim of the work formulated following questions:

What was the cause of injury to the players of the team ZKS Gornik Zlotoryja?

What kind of injuries had players from ZKS Górnik Złotoryja team in career?

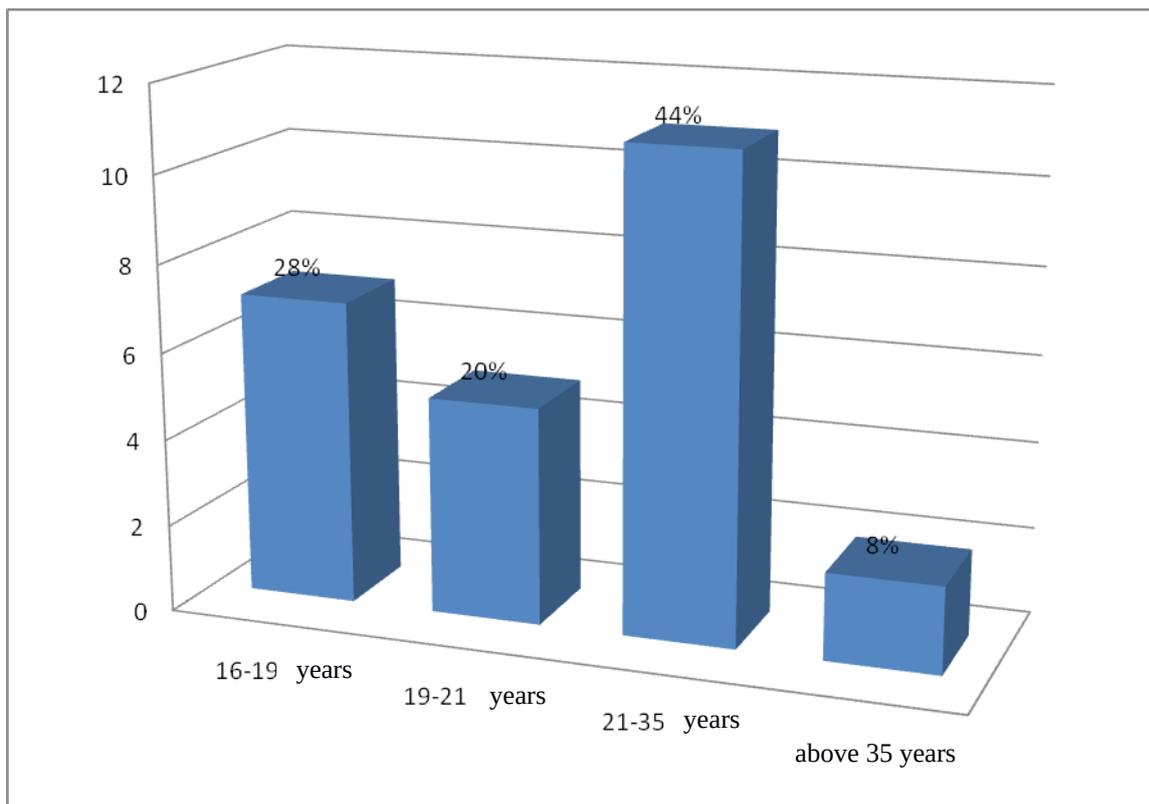
Material and methods

The research material was a group of 25 male trainees actively football. The respondents were men aged 16 to 38 years old (mean average 24,6 years) footballers from ZKS Górnik Złotoryja team. Players train average 3 times a week for 90 minutes. Except

regular trainings they take part in the league. In research was used the questionnaire of diagnostic sounding. For research needs developed the questionnaire which consists 19 closed questions and 3 open questions. First part of the questionnaire included questions about age, footballers seniority, amount of training hours, participate in games. Second part of the questionnaire was about injuries and its occurrence. The answers of the respondents were divided into categories and analyzed statistically. The results of the test are shown in figures 1-7.[6,8]

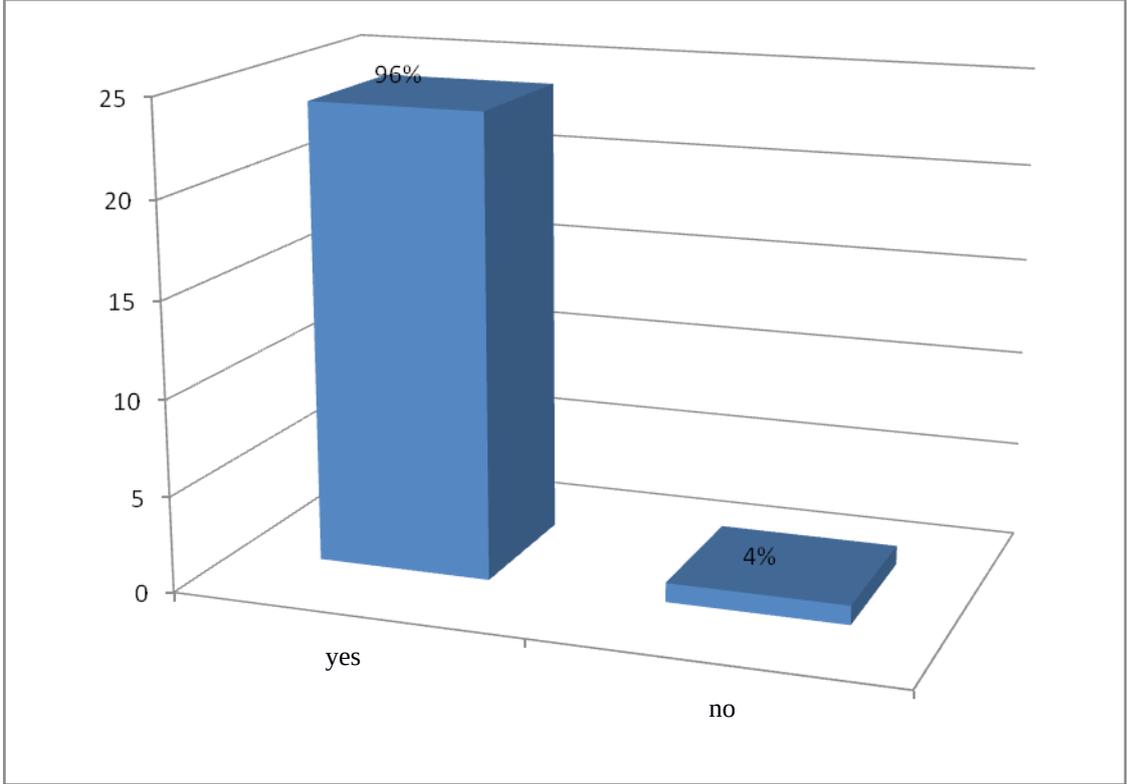
Test results

Figure 1 Analysis of the age of studied footballers group from ZKS Górnik Złotoryja



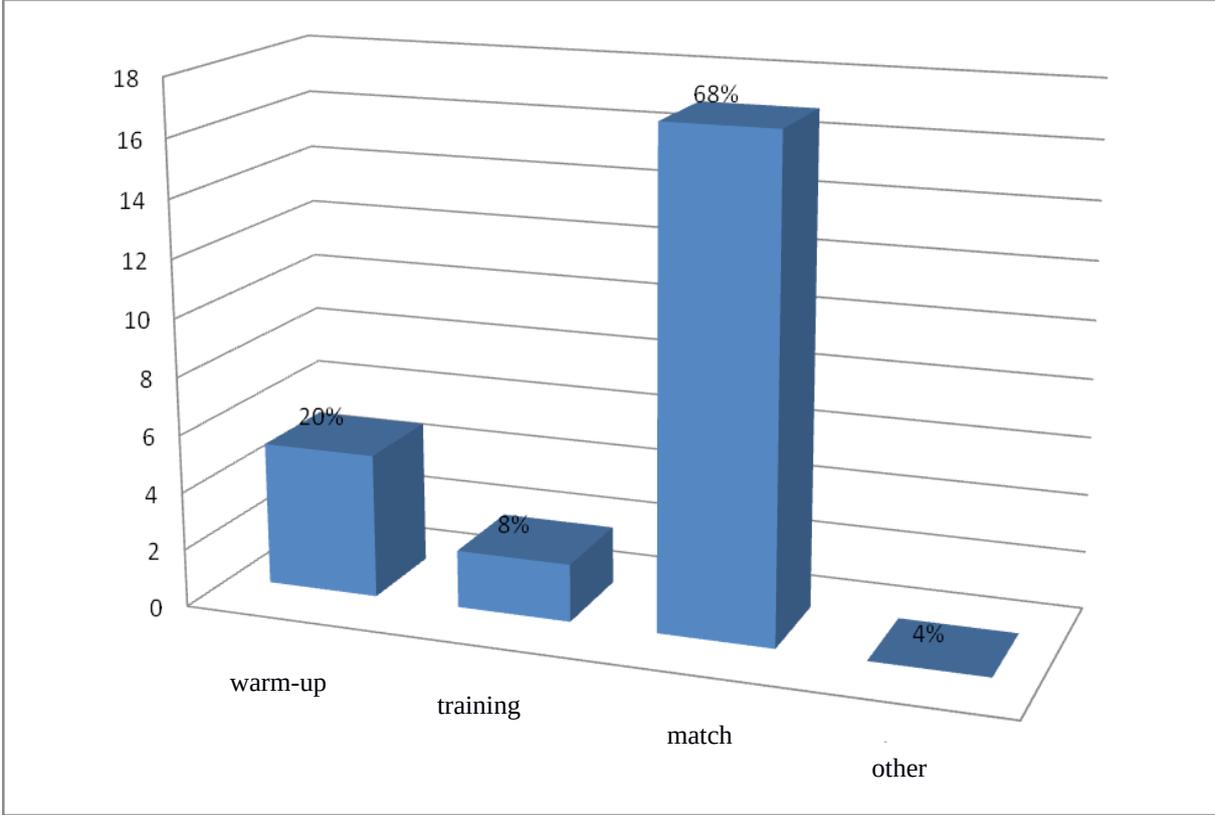
Almost half of the surveyed players, exactly 44% are aged between 21 - 35 years, between 16 - 19 years are 7 men which gives 28%, aged between 19 - 21 are 5 men which gives 20% and above 35 years are 2 men who support the team. It is a young team with an aspiration to achieve a promotion in their group (figure 1)

Figure 2 Evaluation of the injuries frequency in footballers during their career



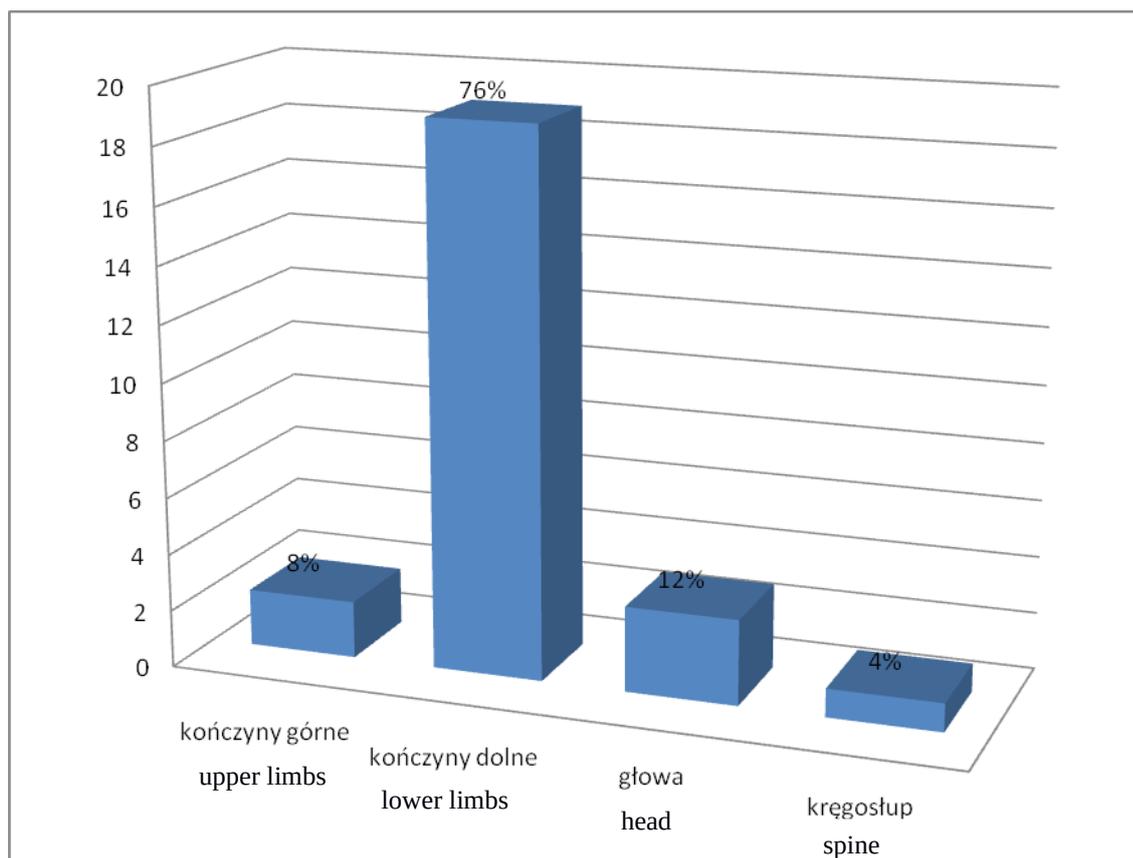
During footballer career in ZKS Górník Złotoryja team on 25 surveyed men, 24 men (which gives 96%) suffered injuries in various parts of their bodies (figure 2),

Figure 3 Situations in which the injury occurred



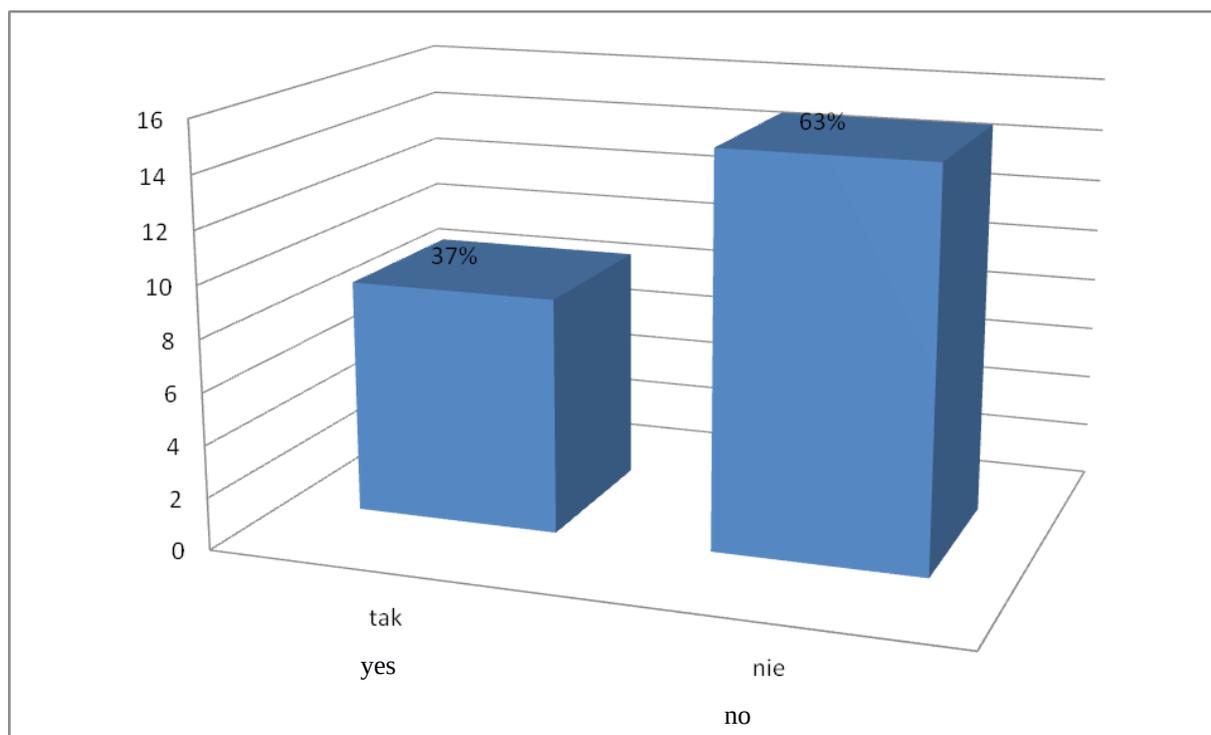
Among the circumstances in which there was a organ motion injury, vast majority - 68% surveyed footballers told that they've been injured during matches, 20% players during the warm-up, 8% during the training and 4% during exercise at the gym (figure 3)

Figure 4 Areas of injury occurrence in footballers of ZKS Górnik Złotoryja



From surveyed men, 19 of them reported that they've suffered injuries of the lower limbs which gives 76% and is a large majority. Among players 3 men suffered head injuries, 2 men suffered upper limbs injuries and only 1 man suffered spinal injury.

Figure 5 Players overtrain in ZKS Górnik Złotoryja team



On the question posed in the survey "Do you think that overtrain could be a reason for sustain injury?" 63% respondents answered positively which suggest that system training - rest in the team should be changed (figure 5)

Coaches and players must be aware that although fatigue and muscle overload are inseparable training elements, the overtrain is a main threat to success, sports results and sometimes even the health of players. [5,11]

Figure 6 Circumstances in which injuries origin.

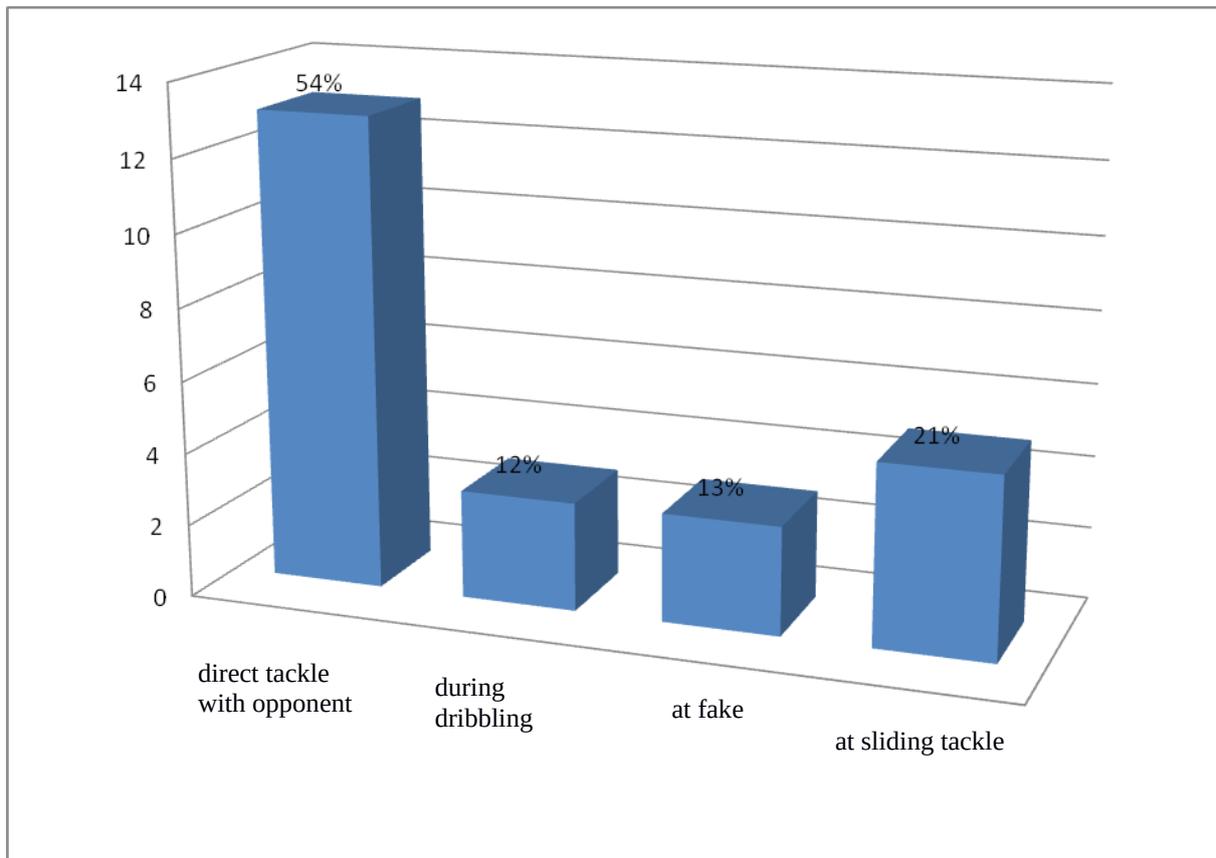
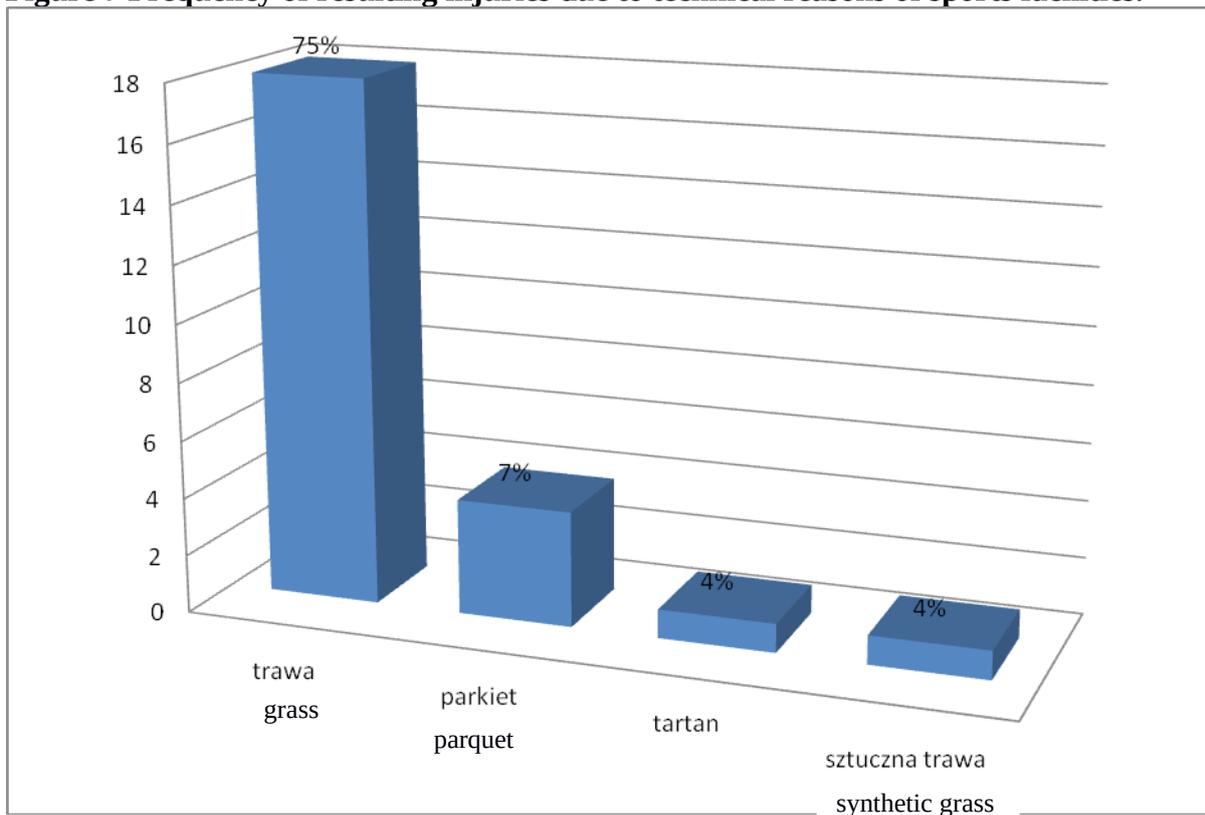


Figure 6 shows that 13 players suffered injury during direct clash with the enemy - 54% cases. Another leading cause of injury was a bad maneuver during footballer tackle (21% respondents). Other causes of injuries were poor ball handling by footballers (3 people) and footballers faint (3 people). Poor ball handling during match and training and bad situation analysis are frequent causes of sports injuries. It is obvious that it's difficult to avoid injuries resulting from direct sports combat. In contrast, players who are well technically trained rarely suffer from injuries [10,11].

Figure 7 Frequency of resulting injuries due to technical reasons of sports facilities.



In ZKS Górnik Złotoryja team the most common injuries occurred on incorrectly prepared grass pitch, said the vast majority - 75% (figure 7). Injuries resulting from improper sports pitch preparation are a major percentage and its due to the negligence of the organizers. One of coach's duty is to control the object and in the case of irregularities its warrant removal. When the sports facility does not comply with the regulations this fact should be reported to the organizers and referee, including proposal of the holding of competitions [10].

In studied group the most common injury was sprain ankle which suffered 16 respondents which gives 41%, other suffered of back pain 13%, 11% suffered of hip-joint, 10% suffered of other injuries such as head injuries. Among other injuries, respondents mentioned: twisted knee-joint, twisted wrist, breaking shoulder, back pain, meniscus damage. According to the literature, sprain usually occur during physical exercises on uneven ground, tackles with enemy and jumping [4,7].

Discussion

Football is a discipline in which people who train are particularly vulnerable to the large number of overload changes and injuries within the musculoskeletal system. Body injuries in players are now almost constant sports element. its harder if the sports competition is more brutal. Among different sports discipline, footballers suffer injuries the

most, which shows the injury indicator of Dobrowolski and Trofimow. Footballers usually suffer from lower limbs damage, especially knee, ankle and foot joint. Although the lower limbs injuries are the most often among the players, there are also upper limbs, trunk and head injuries [1,7,11]. After analyzing the results of research carried out in the team ZKS Górnik - Złotoryja on 25 surveyed people 24 in their football career had suffered an injury. One person from the respondents had not suffered any damage which gives a result of 96% and confirms the fact of how much injury susceptible sport, football is. The work results are consistent with the findings of other authors who also point to the high prevalence of injuries in players who train football. In ZKS Górnik - Złotoryja team most injuries concerns lower limbs - 76% and in the most cases damaged were ankle-joint (41%), hip-joint (11%), ankle-joint (5%). Footballers suffered the most from sprains and bruises. The results of other authors confirm fact, that the most common injuries occurring in footballers are bruises, sprains and tearing apart and strains of tendon-muscular apparatus [1,4,9]. In further results analysis focused on the causes of the damage.

Analyzing the own results 63% players as the main cause of injury pointed overtrain, 54% direct clash with the opponent. In the respondent's opinion bad weather did not affect on injuries occurrence, but usually pointed on improperly prepared football pitch (75%). The results of other authors also point to a similar risk cause of injury and are similar to own results. In many studies it is pointed that the proper health regeneration and prevention of sports injuries is very important [3,5,12].

Conclusions

1. Players from ZKS Górnik - Złotoryja team in the vast majority suffered injuries of musculoskeletal system.
2. Due to nature of football the most vulnerable to injuries were lower limbs.
3. The most common injuries in surveyed group were sprains and bruises in lower limbs.
4. Among the circumstances in which players suffered injuries pointed on overtrain and direct clash with the opponent. Among technical reasons the most pointed was improperly prepared football pitch.

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