

A Study of Prevalence of Injuries of Competitive Football Players

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Abstract

Football is the most hazardous of team sports and injury is a frequent event in football. Football requires a variety of physical and motor fitness with sound playing tactics. It is an enjoyable and social sport than can be played from childhood to old age, either at a recreational level or as competitive sports. Football playing largely involves starting, running, stopping, twisting, jumping, kicking, and turning movements that place the players to higher risk of football injuries. Football is a high risk collision sport and injury is common in football players. The football injuries can be define as any physical complaint by the footballers during match playing and training or practice period it may be contact or non-contact. Contact may be contact with players to players, players to referee and players to goal post however may be running, jumping and turning. The present study is under taken to know the injuries related factors and mechanism, of injuries sustained in football which about the existence of knowledge is a greatest significance of the study. The results of this study may also help to contribute the prevention and reduction of injuries among football players. This research may inform policies and practices designed to improve the awareness in football players, coaches and physical educationist regarding the ill effects of injuries on sport performance, ultimately, the findings will reduce the football injuries particularly and sports injuries in general and enhance the quality of game in the players. Prevention of football injuries and enhance the football performance, but also to demonstrate the tremendous potential of research on prevention of different –different sports injuries in countries such as India.

Keywords: *Prevalence, Injuries, Football Players, football performance, India*

1. INTRODUCTION

The football game is one of Indian and world's most popular sports. Soccer is most dangerous in competitive team sports and injury is a frequent event in football. Albright, McAuley E, Martin RK,(1985). Football is sports at high risk and injuries to footballers are frequent prom. It is a social and enjoyable sport which you can play either in the playground or as competitive sports from childhood through to old age. In some cases, the most part of the sport accidents may take place while involved in games and competitions, tournaments, training time or exercise activities due to physical activity. High risk accidents include Football, Soccer, Basketball , cricket, Hockey, Skiing, Tennis and Contacts. Injury can be the most common caused by low activity standards events, bad exercise or foul play. Warming and stretching, accidents and rehabilitation processes are well-known to not be properly practised. It is well-known. Lesions have taken place at both the senior and junior levels in all football levels. The most important factor for development today is sport. The picture of country and national pride is also connected with sports. The importance of sport as the foundation of body and mind health is known by everyone. The exercising of the mind and body together is of great importance.

Spiritual and moral regeneration of society is important in games. Better world is for all people a place and an environment of harmony. Therefore, every international and national organisation works hand-in - hand to make this world live with peace and tranquillity and to use sports to preach this Gospel. In games and sports the current era is to a large extent the age of competition in any region. When speaking of games played in the long run for lime Hockey, football, volleyball etc., you need ability, pace, power, endurance and endurance until the end of the game. It is also noticed that the player loses the game without these capabilities. Except for this, players must have effective strategies and tactics. For all good results in games and sports, physical activity is important. Different sports require various types of fitness for a certain fitness factor. However, every sportsman requires an overall standard of physical fitness. An frequency of injuries and injury trends of Asian soccer players has been documented

in Asian Tournaments recently. In all 411 junior and senior Asian footballers, 50 international matches have been held. The team doctors also studied the incidence of injuries in one study and found the anatomical location of the injuries, injury type, injury length and injury causes. During a retrospective study of injuries in the 2010-2011 Spanish football tournament, 134,5570 football players were found. In this report, 67% of players lost time because of injuries, while a doctor provided care for 32.7% of football players because of injuries. Injuries have troubled the coach, the jurors and the suspects more. The anatomical location of fractures, strains and ruptures is also more frequent, the knee (29.9 percent) and the ankle (12.4 percent).

Soccer includes start, sprint, stop, twist, leap, kick and turn motions, which contribute to a higher risk of damage. Football The area of sports medicine was somewhat attracted by football. Soccer is a high-risk sport which is prevalent in soccer due to overuse injuries. Just a few studies on injury and pattern occurrences, potential risk factors and injury prevention were done for football. In the literature. Lower limbs injuries in football are the most common injuries relative to top limbs. Soccer is a sport which requires the player to be strong. Head injuries can be extreme or serious football in a game; three distinct forms of potentially lethal intracranial bleeding that must be alerted at any time a player is injured to his / her head. The fastest progressive but also more right one is caused by a tear in one of the brain's arteries. This is typically a hematoma outside the walls. The second form of bleeding takes place under the medication. The tear of vessels bridging between the brain's surface and sinuses is either connected to the tear of vessels, or occasional oozen from the contused brain region. The tear in vessels is typically due to the shearing of these bridging vessels and a rubbing of the result of a deceleration fracture on the surface of the brain. The third form of trauma-related intracranial bleeding is in the brain material. Perhaps, it's mostly due to contusion. In general, the frontal bone is divided into a strong anterior force that often displaces the front wall of the sinus and induces tremendous forces to damage the back wall of the sinus in football through exposure or brain injury. In football the nose is the most often broken facial structure, since it is the most significant and has a relatively poor structure. When a soccer player falls to the ground or hits other players or targets, the mandible is the most often damaged facial bones in football. Since the jaw has a semitricular structure, two fractures typically occur from a blow applied on the jaw.

Zygoma fractures and control bones are the most common facial fractures in soccer, the third most prominent facial fractures and 10 facial fractures are comparatively poor if a blow drop in the zygoma body is normally replaced, external ear lesions are normal in some gyms but uncommon in soccer. Larynx and trachea are the most common external injuries that endanger life. Any hit to the neck causes lack of oxygen, rumbling, speech loss or bleeding. Trachea and larynx are very rare football injuries. Football includes knee fractures, ankle joint, hand and toes. Tackle injuries vary from minor ligamentous injuries or dislocations and often entail a decline in surgery and major tendon injuries which can end your career. Severe abdominal wall injuries are unusual in soccer. As it is on the leaning side on the chest, the abdomen is largely covered. Hand, football and finger injuries are common. An interphalangeal dislocated joint is a common injury to indoor football. Tackle injuries vary from minor ligamentous injuries or dislocations and often entail a decline in surgery and major tendon injuries which can end your career.

2. LITERATURE REVIEW

Nina (2014) surveyed all accidents in athletics since 2007 to develop health safety policies for their athletes. Injury frequency and characteristics analysis for 13 world championship athletics from 2007 to 2012 in various competition styles and divisions of discipline. For each competition, the team doctors and the Local Organizing Committee record all injuries on a standardised injury report.

Sinku S.K. (2008) In order to determine the achievement of different stages viz. land conditions, venue, field positions, training and competition, injuries to footballers had to be compared. There were 98 injuries, 40 related to low performance and 58 related to high performance soccer categories. There have been statistically important variations of injury between two soccer classes ($t=2.58$, $P<.01$). Injuries attributable to ground and playing conditions were found to be substantially different in both achieving classes ($t=3.11$, $P < 0.05$). Injury was also observed. There have been no major variations between two football clubs as far as the position is concerned. Important discrepancies between two football teams in the events of injuries were found for the performance and training times for footballers ($t=2.46$, $P<.05$). Compared to low-performing footballers, the high level of active footballers has shown more injuries. Finally, the predominance of lower limb injuries was noticed.

Tyflidis et.al (2012) Reported track & field injuries incurred during one year by students attending sports schools. The researchers observed 2045 students (883 men and 1163 women) who participated in field and track activities at

those schools from September 2009 to May 2010. 150, representing 13.3 per cent of all injuries incurred by students during the study period, were reported. In the months of February, Dezember and January, the majority (34 percent) of injuries were caused by the diagnosis. Students who attended the Athletic Schools that served in the urban area experienced a large percentage of injuries (45.4 percent). The second grade students suffered more injuries than the other grades (first and third grades). The cause of an injury is students who practise or played on a playing surface of tartan. Injuries (43.9%) occurred in the knees and ankles of most of the anatomical sites. In addition, among students who were or were participating in running events, 80,0% of injuries have occurred. The emphasis should be put on prevention measures by physical learning (P.E.) teachers. These steps should include proper supervision, warming and refreshing of students with stretching exercises while they are practising. Through these ideas students are successful in a secure and healthy climate.

Pagare. (2009) The mean age of low output was 19.30 (1,44) years, the weights were 51.25 (6.78) kg, their heights were 168.54 (8.33) cm and their training time was 3.25 (1.02) days (in week), the training period of their football players 1.98 (0.42) hours and the competition lasted 6.7 4 (2.33) per year. Compared real injuries to footballer Their size was 170.52 (8.33) cm., their training time was 4.91 (1.21) days (in week), the amount of training they had was 2.55 (0.62) hours and their competition was 10.06 (3.78) in a single year. Similarly, it means that the footballers' high performance age was 21.08 (1,78) years, the weight was 62.44(8.98) g. Signification of significant differences in the occurrence of specific injuries between low- and high-level football players ($t=2.36$, $p<.05$). These results show that football players 'high performance has sustained more injuries than football players' low performance. The low or high football player output ($t= 5.29$, $p<.01$) showed substantial injury difference. These findings show that footballers 'high performance has more injuries than footballers' low performance due to the condition of the field. There were no significant injury variations ($t=.61$). When the difference in injury is considered for different locations, the goalkeeper ($t=1.81$) left half back ($t=.5$), left side full back ($t=.16$), centre-half ($t=.28$) and centre-forwards ($t=.83$) have been identified as no significant differences between the low- and high-level performance of football players. These findings indicate that in the low and high performance of footballers in various field positions no major variations have been identified. There are no major variations between low and high level of results of footballers in various games in the incidence of such injuries. For the combined study of multiple sports ($t=.5$), no substantial variations have been found. In the case of players in the field of Cricket ($t=.26$), Gymnastics ($t=.48$), Hockey ($t=.80$), Basketball ($t=.35$), and Badminton ($t+1.68$) no substantial difference was found when the various matches were conducted separately ($t=2.54$ $P<0.01$) and in each of the two half separately (eg. first half). There were no major injuries to players from the first half and second half ($t=0.26$), and In the case of a composite study ($t=1.85$), as well as six places, Hamstrings ($t=1.22$), Knees ($t=.83$), Ankles ($t = 1.19$), Groins ($t>.50$), Shoulder ($t=0.91$). With regard for the study located there were not major injuries. There are substantial differences between low and high levels of performance in the occurrence of specific injuries during competition and football training time. As significant differences of lesions in combined samples ($t = 2.46$, $p< 0.05$) as well as training ($t = 3.04$, $p< 0.01$) were found, the results of this study rejected this hypothetical finding that footballers have more injuries than football players' level of performance. In comparison with the result of this studies. No significant difference was observed in the event of competition ($t=1.40$). No noticeable difference between low and high level football players when serious injuries arise between lower and higher limbs. However, based on the findings of this research the eighth study hypothesis has come to light as no major difference was observed between the upper and lower limbs of the football players in the combined sample of both the lower and the upper extremities ($t=2.00$) as well as for the upper and lower limbs ($t=.66$) and ($t=.94$) respectively.

Sinku (2013) Reported injuries suffered by football players during the match and training period. The investigator approached the players directly and they were informed about the intent of the analysis. The investigator gave the players extra instructions to complete the questionnaire.

Cromwell & Gromely (2000) developed and updated a questionnaire for professional Gaelic footballers. The wounds of 685 soccer players have been registered. This number is 22.5% in the figures. Football players recorded first-half injury, 25.00% second-half injury, 47.75% training injuries and 06.66% warm-up injuries. In comparison, football players report a comparatively small number of injuries. The high incidence of injuries among soccer players during training and first half.

Sinku (2013) The trial was performed to compare injury incidences between three aged soccer players. In order to compare injury incidences among three classes of football players, the investigator has made attempts to classify football players on their age , i.e. junior (14-18 years), youth (19-24 years old and senior (25-30 years old). In

addition, the value level has been set at the level of .05. The study shows that the difference in incidence was negligible among competing young, juvenile and senior footballers. The result indicates that three aged footballers have made a small difference in the rate of injuries. The findings of this study raise awareness of the ill effects and consequences of injuries by athletes, coaches and physical educators.

Sinku (2014) studies the injuries and performance among competitive footballers. Result reveals that 72.10% junior, 27.72% young and 15.85% senior groups football players were absent from training due to their injuries. Meanwhile, 8.18% junior, 37.91% young, and 39.28% senior groups football players were affected their play due to their injuries. Doctor treats maximum percentage of injuries to football players.

3. INJURY PROBLEM IN ELITE FOOTBALL

The injury risk in elite football is substantial. A study group in the English Football Association reported that professional English players had a more than 1000-fold increased injury rate compared to other occupations that are normally considered as high-risk (construction, industrial, service occupations), when an injury was defined as leading to absence from work. The injury rate in elite football is somewhere between 6-9 injuries/1000 hours of play, being much higher in match play (24-30 injuries/1000 match hours) than in training (3-5 injuries/1000 training hours). To put it in other words, a team with 25 players can expect approximately 50 injuries leading to time loss from play in one season. Half of these injuries will be mild in nature, causing lay-off from training and match play up to one week, but about 15% will be severe injuries, with lay-off more than four weeks. So, is it more dangerous to play elite football today than say 20 or 30 years ago? The game of football has certainly developed immensely over the last decades, with increasing mental and physical demands being put on, particularly, elite level players. It is a common belief that this development has been accompanied with an increase in injury rates. However, data from Allsvenskan show that this does not seem to be the case, where injury rates and injury severity did not differ significantly between the early 1980's compared to the early and mid-2000's. Similar data is found in the UEFA Champions League injury study with stable injury rates in top-level European clubs over the last decade.

4. MUSCLE INJURY – THE MOST COMMON IN MODERN FOOTBALL

As mentioned muscle injuries are very common in football, representing up to 37% of all injuries leading to time loss at men's professional level. Our own data from Champions League show that a team with 25 players can expect 15 muscle injuries each season, and injuries to four major muscle groups of the lower extremity - adductors, hamstrings, quadriceps, and calf - comprise more than 90% of all muscle injuries in professional football. A typical muscle injury to the thigh, groin or calf usually results in 2-3 weeks lay-off from football. Lay-off times vary greatly, however, with approximately 40% of injuries resulting in absence up to one week, 50% within 1-4 weeks, and 10% lasting longer than 4 weeks. Recurrence rates are moderate to high, with 13-20% of injuries leading to a re-injury within two months of returning to play. Lingering deficits from the initial injury (e.g. tightness or weakness, extensive scar tissue, biomechanical alterations, neuromuscular inhibition) and inadequate treatment (e.g. incomplete or over-aggressive rehabilitation, underestimation of an extensive injury) are probable contributing factors here.

5. JOINT/LIGAMENT SPRAINS – SEVERE CONSEQUENCES

Joint/ligament sprains comprise approximately 15-20% of injuries in elite football, and are predominantly located to the foot, ankle and knee joints. A team with 25 players can thus expect about 8-10 joint/ligament sprains in a season. While players are often able to return to play shortly after a midfoot or ankle sprain, a considerable number of joint/ligament sprains, e.g. knee sprains, result in prolonged absence from training and matches. Approximately 25% of injuries are severe, with lay-off more than four weeks. Compared to muscle injuries, the recurrence rates for joint/ligament sprains seem to be kept at a reasonable level among elite football teams (Table 1), with about 1 in 10 causing a subsequent re-injury. It is plausible that the medical teams working in these clubs utilize research advances in this area, e.g. to prevent recurrence of ankle sprains by using ankle orthosis/taping and balance/neuromuscular training. Re-injury rates among cartilage and meniscus lesions of the knee joint are, however, much higher, with up to one-third being recurrences.

Table-1- location lay-off and re-injury rates of joint/ligament sprains in professional

| Location | % of all joint/ ligament sprains | Average lay-off | Re-injury rate* |
|-------------------------|-------------------------------------|-----------------|-----------------|
| Midfoot | 2 | 16 days | 12% |
| Ankle lateral ligaments | 35 | 11 days | 13% |
| Ankle medial ligaments | 3 | 11 days | 12% |
| Ankle syndesmosis | 1 | 41 days | 9% |
| Knee MCL | 16 | 24 days | 9% |
| Knee LCL | 2.5 | 19 days | 10% |
| Knee ACL | 3.5 | 7-8 months | 8% |
| Knee PCL | 0.5 | 2 months | 7% |
| Knee cartilage | 3.5 | 3 months | 37% |
| Knee meniscus | 6 | 2.5 months | 18% |

6. FOOTBALL - A SAFE SPORT FOR YOUTH AND CHILDREN

A series of studies in the last decade, many of them Scandinavian, have consistently shown that the injury rate for children and adolescents who play football is lower than that for adults. Children up to 12 years of age have a very low injury rate, while some studies indicate that youth players at the elite level may be susceptible to injury almost to the same level as adults. A majority of injuries, or up to 70%, are mild in nature, resulting in lay-off up to one week, and with no or little risk of later sequelae. Severe injuries, such as fractures and dislocations, are fortunately relatively uncommon, and, although very troublesome, an injury to the anterior cruciate ligament is also quite rare. Football thus seems to be a relatively safe sport to participate in for youth and children.

7. CONCLUSION

The aim of this study is to the Football is the most hazardous of team sports and injury is a frequent event in football. Football requires a number of sound play strategies for physical and motor activity. It is a social and enjoyable sport which you can play either in the playground or as competitive sports from childhood through to old age. The football game includes mainly beginning, running, punching, and spinning, jumping, kicking and turning motions, which make players more likely to be injured in football. The main objective of the PhD research was to examine the retrospective study of the occurrence of injuries in football players during the time period. Soccer is a high-risk collision event, and football players often suffer injuries. Football lesions can be identified as any physical complaint of footballers during the game or exercise time, whether touch or injury. It is not possible. Touch can be player contact, referee players and goal posting players, but can be run, jump and turn. The present study focuses on the injury causes and mechanism of football injuries which have the largest importance of the study in terms of the presence of information. The results of this study can also enable football players to avoid and reduce injuries. These studies can inform policies and practises designed to enhance awareness of the ill effects of injuries on sport performance in football players, coaches and physical education professionals, in particular, football injuries, sporting injuries in general, and to improve the quality of the player's games. I hoped that this study would not only lead to the prevention of football injuries and to improving football results, but that it would also show the enormous research potential for various sport injuries in countries like India.

8. REFERENCES

1. Nina Feddermann-Demont Astrid JungePascal Edouard Pedro BrancoJuan-Manuel Alonso(2014)Injuries in 13 international Athletics championships between 2007–2012 Br J Sports Med 2014;48:513-522 doi:10.1136/bjsports-2013-093087
2. Sinku S.K. (2008) "injuries to low and high level footballers" journal of exercise science and physiotherapy. : 4 (2) 109-114
3. Pagare. s (2009)comparison of occurrence of specific injuries to footballers at low and high level of performance Unpublished Doctoral thesis Dr. Babasaheb Ambedkar Marathwada University Aurangabad
4. Sinku S.K (2013) Incidence of football injuries Variorum Multi-Disciplinary e-Research Journal Vol.,-04, Issue-II, 1-6
5. Sinku S.K (2013) Nature of Injuries Prevalence in Football Players: A Retrospective Study, Entire Research, Vol.- 5, Issue-IV 19-22

6. Sinku S.K (2014) A pilot study examining the anatomical site of injuries to Elite level football players International research journal of sports glimpses Vol.3 95-99.
7. Sinku S.K (2012) A pilot study examining the anatomical site of injuries to Elite level football players International research journal of sports glimpses Vol.3 95-99.
8. Singh S.K.(2013) Injuries prevalence in competitive footballers Unpublished Doctoral thesis Dr. Babasaheb Ambedkar Marathwada University Aurangabad
9. Jadhav K.G. Pagare S.Kumar S.S..(2008) “injuries in relation to field position of football players” journal of exercise science and physiotherapy. (1) 50-54
10. Jadhav K.G. Pagare S.Kumar S.S..(2008) “injuries in relation to field position of football players” journal of exercise science and physiotherapy. (1) 50-54
11. R Carnduff, B Tan, C McKay, J Kang, P Doyle-Baker, CA Emery (2014)survey of sport participation and sport injury in elementary school children Abstracts of IOC World Conference ,Monaco 2014
12. Razi Ardakani. E (2005). Athletic injuries can be prevented, Zivar varzesh month book.32: 39-41.
13. HölmichNiels Wedderkopp, Lars Louis Andersen, Karl Bang Christensen,Kristian Thorborg, (2014) High Injury Incidence in Adolescent Female Soccer Am J Sports Med July 2, 20140363546514541224

