

ORIGINAL ARTICLE

Epidemiology of injuries sustained by players during the 16th Under-17 South American Soccer Championship[☆]



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Received 8 September 2015; accepted 2 December 2015

KEYWORDS

Soccer;
Injuries;
Ankle;
Knee;
Muscle;
Tendon

Abstract

Objective: We performed an epidemiological study of the traumatic injuries during the XVI South American U-17 Football Championship, 2015.

Material and methods: Observational surveys submitted by the 10 teams' medical services of 220 players. Thirty-five games were held and 116 goals (3.31 per game) were recorded.

Results: 103 lesions, i.e., 2.94 per game or 32.7 injuries per 1000 min, were recorded. Fifty-six were from direct contact and 66 required treatment. 36% were punished by the referees and 26% of injuries led to a yellow or red card. Injuries were most common in the ankle (15 cases), Achilles tendon (14 cases) and thigh (14 cases), followed by trauma to the knee and foot (7 cases each), face and the lumbar region (6 cases each), being rare in the upper extremity.

Conclusion: Injuries during Soccer World Cup are difficult to predict and prevent, but serious injuries are rare. It is necessary to establish protocols that get adequate health care at all levels to solve problems arising, both in training and during the competition, and be prepared to solve the serious problems that may arise.

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[☆] Please cite this article as: Pangrazio O, Forriol F. Epidemiología de las lesiones sufridas por los jugadores durante el XVI Campeonato Sudamericano Sub-17 de Fútbol. Rev Esp Cir Ortop Traumatol. 2016;60:192–199.

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PALABRAS CLAVE

Fútbol;
Traumatismos;
Tobillo;
Rodilla;
Músculo;
Tendón

Epidemiología de las lesiones sufridas por los jugadores durante el XVI Campeonato Sudamericano Sub-17 de Fútbol

Resumen

Objetivo: Estudio epidemiológico de las lesiones traumáticas producidas durante el XVI Campeonato Sudamericano de Fútbol Sub-17 en 2015.

Material y metodología: Estudio observacional de las encuestas enviadas por los servicios médicos de 220 jugadores, de los 10 equipos participantes en el campeonato. Se celebraron 35 partidos y se anotaron 116 goles (3,31 por partido).

Resultados: Se registraron 103 lesiones, es decir, 2,94 lesiones por partido o 32,7 lesiones por cada 1.000 min de juego. Cincuenta y seis fueron por contacto directo y 66 requirieron tratamiento. El 36% de las lesiones fueron sancionadas con falta y el 26% de las lesiones vieron también tarjeta. Las lesiones fueron más frecuentes en el tobillo (15 casos), problemas del tendón de Aquiles (14 casos) y en el muslo (14 casos) seguidos por traumatismos en la rodilla y en el pie (7 casos cada uno), la cara y la región lumbar (6 casos cada uno), siendo poco habituales en la extremidad superior.

Conclusión: Las lesiones durante un campeonato mundial de fútbol son difíciles de prever y de evitar, si bien las lesiones graves son raras es cada vez más necesario establecer protocolos de actuación que consigan una buena asistencia médica a todos los niveles para resolver los problemas que se producen, tanto en los entrenamientos como durante la competición, así como estar preparados para solucionar los problemas graves que puedan surgir.

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Introduction

Football is the most widely played sport among young people under the age of 18 years, and it is also the most popular, with more than 250 million federated players.^{1,2} It is therefore not surprising that a high number of injuries occur, while on the other hand international bodies have run injury prevention campaigns. These campaigns centre especially on muscle and tendon injuries,³⁻⁷ and although they have been universally disseminated and are said to have been beneficial, there is no scientific evidence that they reduce the number of injuries.

Nevertheless, in spite of the importance of the large number of injuries which arise, many of which prevent doing sports, the sports injury data collection system is difficult and non-uniform. Many authorities either do not follow the established protocols or simply lack data. The majority of authors agree on the location of injuries and the nature of the same. Muscle and tendon injuries are the most common, although opinions on them differ widely. It must be taken into account that training injuries are most common pre-season, and that they tend to fall in number during the season itself.⁸

Championships provide an opportunity to analyse the injuries that occur, when they occur and their severity and affect on players. This study analyses the injuries suffered by footballers during the 16th South American Under-17 Championship.

Material and method

We collected data on the incidents and physical activity of the players in the 16th South American Under-17

Championship. This was held in Paraguay from 4 to 29 March 2015. All of the players were 16 or 17 years of age. 35 games were played and 116 goals were scored (3.31 per match). The average number of minutes played amounted to 343 (SD: 235), with a range from 810 to 3 min (Table 1).

220 players in 10 different teams took part. The competition started with two groups containing five teams each. All of the teams in each group played against each other in a league system. The best three teams from each group classified for the final phase. This consisted of another league in which all of the teams played each other. In the case of a points draw in any position, classification was based on the following criteria, in decreasing order: goal difference, number of goals scored and the result of a match played between drawn teams decided by a draw.

The forwards scored 49 goals, midfield players scored 39 and defence players scored 13. During the championship 144 yellow cards and 11 red ones were shown. The forwards were shown 33 yellow cards and one red card; defenders were shown 57 yellow cards and 7 red cards, while midfield players were shown 53 yellow cards and 3 red ones, while the goalkeepers were only shown one yellow card.

The average height of players was 1.76 m (SD: 0.06), with a range from 1.60 m to 1.90 m. Their average weight was 67.93 kg (SD: 6.33), with a range from 50 kg to 85 kg. Their average body mass index was 21.88 cm/kg² (SD: 1.49), with a range from 18.36 cm/kg² to 27.42 cm/kg² (Table 2).

The medical services of the participating teams sent in a survey of incidents after each training session and match. The data were analysed and processed by the Medical Commission of Conmebol (the South American Football Confederation). This first study only counted the incidents which occurred during each official match. Anything which occurred during the championship that required treatment

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