



Mini Review

Effect of proprioceptive training in male soccer players

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Abstract

Soccer is one of most popular and practiced sports. Although, we can establish its dynamic character as a determining factor that injuries to occur. Although, the majority of injuries are caused by contacts or impacts, a wide part of them are caused by receptions after jumping and changes of direction own of this sport. Here, we show the importance of a proprioceptive program to avoid injuries in football that shows its practical applicability in daily training. Our approach is based on important scientific research of different collective sports. In addition, we organize the training following the fundamental principles of training. In this sense, specific materials are used (unstable platforms, fitballs, etc.) and exercise with real applicability to the game that will provide the player with optimal a rapid response to a possible injury. Our work attempts to demonstrate that intervention carried out would have a preventive effect on the frequency of football injuries, providing effective responses and improvements in strength, coordination, balance, reaction time to specific sports situations. Lastly, we also want to highlight the importance of the multidisciplinary work of doctors, trainers, physical trainers, adapters and physiotherapist ass an essential factor to minimize the number of injuries.

Introduction

Undoubtedly, the physical contact in soccer demands a great physical capacity known as the capacity to preform repeated accelerations and high intensity efforts. In this sense, physical capacities have to be taken into account while being focus on keeping the ball possession. Account taken of all the above and combining all these factors with external stimulus, a high injury risk is suffered from soccer players, not only does it have direct consequences to them, but it also has disadvantages to soccer teams (Elangovan, et al. 2014). For this reason, soccer has been decided to enhance the knowledge to prevent injuries with a view to lowering the risk factors [1]. Thus, we want to demonstrate that the specific intervention is effective to prevent soccer injuries, improve strength, coordination, balance and reaction time through a collaborative work from different fields like.

Proprioceptive system is comprised by nervous receptors which are the proprioceptors found in muscles, ligaments and joints to detect the muscular tension and stretching. The brain

is which processes the information and sends it to the muscles to readjust what is being needed. Everything is subconsciously controlled so lower levels of mobility means a parallel reducing of proprioception system impairing the coordination. To adapt the nervous system, it is massively important to activate the proprioceptors through repeated models in a frequent way to improve body posture in any risky injury situation. Likewise, a right stabilization capacity is bond to preventive tool to fight against sports injuries. A high injury incidence in a team means that the individual and collective performance are much lower [2]. To solve this, physical trainers should design a specific plan to strengthen and improve control motor in weak zones with fatigue and overload. Despite its importance, it has always been missing in comparison with other sports so we demonstrate that novel training methods will be the key to lengthen their sports life. As shown in the review of Huerta, Á., Sandoval, D. A. C., & Barahona-Fuentes, G.D [3], a propioceptive program is likely to reduce the injury risk in knees and ankles among others. What's more, not only can new injured soccer players benefit from propioceptive program to lower the injury risk but player who have a high tendency to get injured can also reduce it [4].



Actually, we have enough evidence to prove that our proprioceptive program can perfectly work, it is recommended to use tools of evaluation, diagnosis and intervention by medical and sports staff. Undeniably, the reflective evaluation would be able to help us to better our muscular implication and the exercise complexity [5]. Regarding to the strength quantification, we can value through an isokinetic way as it allows as to determinate the degree of functional balance between agonist and antagonist muscles [6]. Moreover, we can complementize it with the Yo-Yo Technology or the tensionmyography to evaluate neuromuscular features and monitor the work [7]. Last, we add the ones mentioned by Noyes, et al. (1991) and Solla and Martínez [5], which are the hop horizontal test and the triple jump. Additionally, they propose to utilize other speed test such as the lineal 30 meters test, the no lineal 20 meters tests or the four-line sprints and other strength test like como SJ, CMJ, ABALAKOV.

In conclusion, the majority of injuries in soccer without physical contact are running or after jumping because a lack of physical capacity and a proprioceptive training. According to the scientific evidences by Knobloch, et al. (2005) and Crespo Rodríguez-Miñón [8], we can confirm that these programs improve outcomes related to lower limbs, the muscular and tendon structure muscular and joint structure. Taking into account these studies, we will base our training programs on the efficacy and safety. Therefore, if we control all aspects as Solla and Martínez [5] tell us, we will be able to lower the injury risk significantly. In comparison with those who do not follow the proposal, there would be a noticeable difference [9]. For this reason, we propose exercises to prevent any injury typology used movement as jumps, passes, interceptions, etc. It accordingly considers working as a multidisciplinary team

would allow medical and sports staff to prevent any injury improving basically strength and coordination capacity.

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