14 - WHAT WOULD BE THE AGE TO ENTER THE REFEREEING BOARD OF CBF?

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INTRODUCTION

Once again the Brazilian soccer, specifically the refereeing, has been suffering with the wrong decisions for your leaders. Recently the national press was bound by that determination of the Refereeing Commission of the Brazilian Soccer Confederation (CBF), the maximum age for the referee to enter the national board, would be reduced from 35 to 30 years. Obviously, the refereeing committee is composed of professional's graduates in several areas, however, no evidence or even scientific theory was presented to support this change. In fact, if it happens, certainly will undermine and frustrate many individuals who chose a career as a referee, and wishing to someday enter the board of the higher entity Brazilian soccer refereeing.

Recently, we found one study that the referee spends most of time walking during the game. It was found that 90 minutes of play, he walked 52% of the total time of the match (Da SILVA et al. 2008). In another study involving Danish referees, Bangsbo and Krustrup, (2001) reported that the referee stood the majority of playing time walking, and it corresponded to 40%. The second motor action most used by the referees is jogging (slow run). The jogging time spent by the Brazilian referees accounted for 19% of the game (Da SILVA et al. 2008). On the other hand, Rebelo et al. (2002), describe a percentage of 25.9% for motor action that Portuguese referees. A motor action reaching more speed that has walking but is smaller than the jogging is the backwards. The sum of time these three motor actions (walking, trotting and backwards) shows that the referee stay in this actions on average more than 77% of playing time (Da SILVA et al. 2008). Studies published in different countries showed values ranging from 60 to 90% of the total time of the game (KRUSTRUP e BANGSBO, 2001; REBELO et al. 2002).

Rebelo et al. (2002) consider the soccer referee spends more than 60% of playing time in physical activities of low intensity, ie walk, jogging and backwards. However, these authors did not consider the time that the referees remain standing still during the game. When we sum this time with the time that the referee carries out low-intensity activities, it found that the referees studied here, represent 93% of the total time of play.

High-speed races and moderate intensity are poorly executed at a soccer referee. Our latest study reported that was no more than 7% of the total time of the match (Da SILVA et al. 2008). In scientific literature the mean time in these motor actions ranged from 4 to 19% of playing time (KRUSTRUP e BANGSBO, 2001; REBELO et al. 2002).

DISCUSSION ABOUT REFEREE'S AGE

Castagna et al. (2005) developed a study with Italian referees entitled "Effects associated with age and physical fitness performance in elite soccer referees." According to these authors, the elite soccer referees usually reach the peak of his official career with average age considerably older than that seen in soccer players. The difference in the average age in soccer players and referees can exist because the experience is considered by the governing bodies of international refereeing, as the Federation Internationale de Football Association (FIFA) and Union Europenne de Football Association (UEFA) the key to enter the elite of the refereeing (EISSMANN and D'HOOGHE, 2006).

Unlike players, who at around 18 to 20 years become professionals, referees are usually beginning their careers, not fully understanding the dynamics of the refereeing. Therefore, the elite of Brazilian soccer referee reach the peak of his career, over 40 years. Data from the 2002 World Cup showed that the age of soccer referees who officiated from the quarterfinals of the World Cup, was 41 ± 4 years (CASTAGNA et al. 2005). Thus, from scientific information which indicated that aging has been reported with negative factor to physical performance, a study was conducted to answer the question what the effect of aging on the physical performance of elite soccer referees in England. To test the likelihood of variations in age-related fitness and performance, the referees in the study by Castagna et al. (2005) were subdivided into three age groups: young (Y, 31-35 years, n = 10), medium (A, 36-39 years, n = 14) and old (O, 40-45 years, n = 12). The battery of FIFA fitness test was applied, used until the year 2006, which consisted of an aerobic running (running 12 minutes, Cooper test) and two anaerobic races (two notches 50m and 200m).

After results analysis, the authors concluded that the distances the three groups during the Cooper test, showed no statistically significant differences between them (p> 0.05), in other words, the groups performance were similar. As described previously, the referee physical activity during the match is predominantly aerobic, therefore, for this variable could not remove the older referee into the CBF refereeing board. Although, there were no differences in aerobic fitness data between age groups, Castagna et al. (2005) reported that after regression analysis of the data obtained, there is a significant trend and aerobic performance decline age-related. This result supports the idea that through regular physical training, the differences age-related in physical performance may be reduced (ROGERS et al.1990).

In respect to anaerobic tests were no found significant differences among the three groups in the 50m sprint test (p> 0.05). Differences were found in the endurance test speed (200 meters) between the groups O and Y (p <0.05, 30.73 ± 1.36 and 28.95 ± 1.36 seconds, respectively), but the mean time showed by both groups, these were approved in the test set by FIFA, which was needed a minimum score of 32 seconds. These findings suggest greater attention to anaerobic training addiction, with increase age in elite soccer referees. However, experts referees can overcome their lack of anaerobic fitness by being more selective about the activities of high intensity used during the match, ie, the experience gained from years of refereeing provides to them verify those moves that will come to nothing, so without that it will not move to where they are occurring.

According to Weston et al. (2008), the international referee's bodies have a mandatory retirement age (compulsory) from 45 years to referees. However, in some countries the mandatory retirement has been questioned, even though it goes against the European Employment Policy, which prohibits discrimination in relation to employment age. Thus, the relationship between age and physical performance during the match has yet to be examined. Weston et al. (2008) aimed to investigate: (1) the effect of age on referee's physical performance during soccer matches in relation to the distance of the violations and the ball for four consecutive seasons and, (2) examine the effect of age on physiological load imposed on soccer referees during

competitive matches. For investigation, the authors observed 778 matches. The referees were assigned to three different age categories: young (31-36 years, n = 135 observations of departure), intermediate (37 - 42 years, n = 308 observations of departure) and older (43 - 48 years, n = 335 observations of departure).

However, as the retirement age in the English Premier League is 48 years, as opposed to 45 years in the Italian, Spanish, Brazilian leagues, etc., the average age of the groups in this study was higher than previously reported. Variables involving the motor actions of the referees during the match were measured: (1) total distance covered (TD); (2) distance covered with high intensity running (speed > 5.5 m s-1 (> 19.8 km h-1), HIR); (3) short running (speed > 7.0 ms-1 (> 25.2 km h-1), SC; (4) speed max of sprint (m s-1, TS); (5) average distance from the ball (m, BD); (6) the average distance of infractions (m, DF). After data analysis, Weston and colleagues (2008) reported significant effects of age for TD (r = -0.52, p <0.001), HIR (r = -0.53, p <0.001) and SC (r = -0.53, p <0.001). No age effect was found for DB and DF (p> 0.05). Although to cover less TD, HIR and had fewer short-distance races, the referees older (43-48 years) were able to maintain an average distance of infractions that were comparable to those reported by youth referees (31-36 years). Therefore, reduced physical performance associated with increasing age of the referee does not seem to impact the ability of older referees to maintain the pace of play. Taking into account these results, the governing bodies of refereeing may review guidelines that are based on retirement at the age of the subjects. According to Weston et al. (2008), no correlation was observed between referee's age and DB and DF. Thus, the reduced physical performance of older referees did not affect their ability to keep pace of play. As a result, it was possible to observe the effectiveness of the referees to ensure the best position to see the game where it is more important. The specific literature suggests that experts are better for beginners to use visual cues to guide their anticipated actions (ABERNETHY, 1987, WILLIAMS and BURWITZ, 1993). Therefore, the findings of this study are best explained by the older referees, more experienced and insightful to read and anticipate the game and ultimately being more economical with the movements due to many years of practice.

The controversy over the participation of more experienced referees in matches of high level, also led some Spanish researchers to investigate these subjects (and CASAJUS CASTAGNA, 2006). These researchers have traced the aim to examine the fitness of elite Spanish soccer referees in relation to age. To test the likelihood of age-related changes regarding the performance of physical fitness, the referees were grouped into three age categories: young (Y, 27 - 32 years n = 15), medium (A, 33 to 38 years n = 17) and old (O, 39 - 45 years, n = 13). These authors used the same classification of Castagna et al. 2005, the same article discussed above. Importantly, the range of age considered for the "old" group was chosen because the Association of Football Referees Spanish (CTA) calls "39 years" age limit for the referee to get access or to be a part of elite level soccer referees. In England, where much of the world's richest clubs, referees can act until the age of 48 and is also being contested where the output of the same upon reaching age 45, of the higher entities soccer world as FIFA and UEFA. In Spain, where clubs are run by highly professional managers, where participated much of the best soccer players, the age for the referee can enter the select group of elite referees is 39 years.

The test's battery used for the development of this Spanish study was used by FIFA in 2006, consists of two runs of 50 m and 200 m, and one run of 12-minute (Cooper test). Casajus and Castagna, (2006), also determined in laboratory VO2max and breathing limit (ventilation) (VT). These measures of aerobic fitness were made by the authors, because previous studies have clearly shown that speed limits in certain selected lactate limits and VO2max are associated with physical performance in the elite soccer referees game (CASTAGNA et al. 2002a, and 2002b). Casajus and Castagna, (2006) observed that the referees in O group were significantly slower in the sprint (50m) than Y group. In fact, the performance in sprint (50) was previously reported as not being significantly related to physical performance in the game (CASTAGNA et al. 2002b). On the other hand, no significant effect of age was evident on performance in 200 m and 12 minutes running (p> 0.05). In the study by Castagna et al. (2005), no significant difference among the referees group in 50 meters sprint test. However, were found differences when compared the performance among age groups during 200 meters test. Thus it is evident that despite the contrast between the results, the referees who are older are able to have officiated matches in any country elite level.

Regarding the results obtained in the laboratory, was not significantly different in both the absolute and relative VO2max between age groups (p> 0.05). These results showed that there were differences age-related in selected components of physical fitness in this soccer referees elite level group. Specifically, both the short anaerobic sprint (50 m sprint) and the sub-maximal aerobic running (VT) were significantly better in younger referees than older colleagues (CASAJUS and CASTAGNA , 2006). Nevertheless, neither the VO2max as the 12-minute test, the variables that were previously shown as strongly related to performance during the game (and D'Ottavio CASTAGNA, 2001; CASTAGNA et al. 2002b) showed no significant difference between ages.

These findings suggest that older referees have aerobic performances similar to those shown by younger colleagues. It is possible that the history of regular high-intensity training in this old elite level referee group may have prevented or lessened the anticipated decline in VO2max that is common in a non-elite population (ROGNMO et al. 2004).

Krustrup and Bangsbo, (2001) reported that high-class referees, older (age 40-46 years), have more difficulty to maintain the pace of the game than younger counterparts (aged 29-34 and 35-39 years). Probably, the results obtained in 12 minutes test and VO2max levels similar to those found in younger colleagues may offset the underperformance reported in VT.

Casajus and Castagna, (2006) concluded from their results that the level of old elite referees can reduce the expected decrease in performance related to age, both aerobic and anaerobic usually reported for sedentary people. Additionally, they showed that old referees maintain your fitness levels, witch have been suggested as appropriate to support the requirements of the game (CASTAGNA et al. 2002b; WESTON et al. 2004).

CONCLUSIONS

From the studies presented, there would be no scientific support for using age as a limiting the referee to make the elite of Brazilian refereeing, especially in the age of 30 years. The reason that physical training improved and the games became more competitive does not support the argument for changing the referee age to ascend from CBF, as occurred in the same way that innovations in the physical preparation of players, there also was innovations in fitness of football referees, including allowing it to discuss staying for a longer period of referees in the tables of the higher entities in soccer world, given that the experiences gained by referees throughout his career are of extremely importance for correct application of the soccer rules. When training referees, it is important not to lose sight of the main aim, which is to improve performance during the game (WESTON et al. 2004; Da Silva, 2005). Improve levels of physical fitness not mean improving performance during the game. It was previously shown that intense intermittent training not only improves the levels of fitness in soccer referees, but that improvement in physical form is concomitant with an improvement in performance during the game.

The distance of the violations has not increased in the last phase of the game as was observed before an intermittent training. Together, these findings could improve their physical performance during the games by performing regular exercise of

high intensity intermittent training (KRUSTRUP and BANGSBO, 2001).

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WHAT WOULD BE THE AGE TO ENTER THE REFEREEING BOARD OF CBF?
ABSTRACT
Recently, the national press aired that determination of the Arbitration Commission of the Brazilian Football Confederation (CBF), the referee maximum age to be part of the national board would be reduced from 35 to 30 years, and that decision was taken without presentation of any scientific basis. Therefore, the aim of this study was to determine whether there are significant differences between the physical performance of a referee aged 30 years compared with an over 40 years. To that end, this research was developed based on bibliography, which used as a theoretical, scientific articles published in specialized journals. To test the likelihood of variations in age-related physical fitness and performance, Castagna et al. (2005) separated by age, one group of referees. After analyzing the results, the authors concluded that the distances the three groups during the Cooper test, no showed statistically significant differences between them (p>0.05). Although go (cover) less total distance and perform less sprints, referees older (43 - 48 years) were able to maintain an average distance of infractions that were comparable to those reported by umpires youth (31 - 36 years) (Weston et al. 2008). Spanish researchers (CASAJUS and CASTAGNA, 2006), observed that both VO2max. as in 12-minute test, the variables related strongly with race performance during the game (D'Ottavio and CASTAGNA, 2001; CASTAGNA et al. 2002b) showed no significant difference between age groups in the development study. These findings suggest that older referees have aerobic performances similar to those shown by their younger colleagues.
KEY WORDS: referee, soccer, age.

QUEL SERAI L'ÂGE POUR L'ARBITRE ENTRER DANS LE CADRE DE L'ARBITRAGE CBF?
RÉSUMÉ
Récemment, la presse nationale a véhiculé que pour determination de la Commission d'arbitrage de la Confédération brésilienne de football (CBF), l'âge maximum pour l'arbitre faire partie du cadre national serait réduit de 35 à 30 ans, et cette décision a été prise sans aucun fondement scientifique. Par conséquent, l'objectif de cette étude était de déterminer s'il existe des différences significatives entre les performances physiques d'un arbitre entre les 30 ans par rapport à ce qui ont plus de 40 ans. À cette fin, cette recherche a été développé sur la base de la bibliographie, qui utilisé comme référence théorique, articles scientifiques publiés dans des revues spécialisées. Pour tester la probabilité de variations de la condition physique liée à l'âge et la performance, Castagna et al. (2005) ont séparé par groupe d'âge des arbitres. Après analyse des résultats, les auteurs ont conclu que les distances parcouru par les trois groupes pendant le test de Cooper, n'a montré aucune différence statistiquement

significative entre eux (p> 0,05). Même si parcourrir une plus petite distance totale et de realiser moins de courses de courte distance, les arbitres plus âgé (43 - 48 ans) ont été en mesure maintenir une distance moyenne d'infraction qui ont été comparables à ceux rapportés par les jeunes arbitres (31 – 36 ans) (Weston et al. 2008). Des chercheurs Espagnols (et Casajus CASTAGNA, 2006), ont fait observer que, autant le VO2max. comme dans le test de 12 minutes, les variables liées fortement avec les performances de course pendant le jeu (CASTAGNA et D'OTTAVIO, 2001; CASTAGNA et al, 2002b.) n'ont montré aucune différence significative entre les groupes d'âge dans l'étude qu'ils ont développé. Ces résultats suggèrent que les arbitres plus âgés ont des performances aérobies similaires à ceux présentés par leurs collègues plus jeunes

MOTS-CLÉS: arbitre, le football, âge

¿CUAL SERIA LA IDAD PARA EL ÁRBITRO ENTRA EN EL CUADRO DE ARBITRAJE DE LA CBF?
RESUMEN

Recientemente fue transmitido a la prensa nacional que por determinación de la Comisión de Arbitraje de la Confederación Brasileña de Fútbol (CBF), la idad máxima para el árbitro hacer parte del cuadro nacional se reduciría de 35 para 30 años, siendo que, esta decisión se tomó sin presentación de cualqueir base científico. Por lo tanto, el objetivo de este estudio fue determinar si existen diferencias significativas entre el rendimiento físico de un árbitro de 30 años, en comparación con un de más de 40 años. Asi que, desarrolló esta investigación de cunho bibliográfico, que utilizó como referencial teórico, articulos científicos publicados en periodicos especializados. Para testar la probabilidad de variación relacionadas con la idad y el rendimiento, Castagna et al. (2005) separaron por idad un grupo de árbitros. Después del analisis de los resultados, los autores concluyeron que las distancias recorridas por los tres grupos durante el test de Cooper, no presentó diferensas estadísticamente significativas entre ellos (p>0,05). A pesar de recorrer menor distancia total y realizar un número menor de carreras de curta distancia, los árbitros más viejos (43 – 48 años) consiguieron mantener una distancia promedio de las infracciones que fueron comparables a los reportados por los jóvenes árbitros (31 – 36 años) (WESTON et al. 2008). Investigadores españoles (CASAJUS e CASTAGNA, 2006), obserbaron que, tanto en el VO2máx. como en el test de 12 minutos, las variables relacionadas fuertemente con el desempeño en la carrera durante el juego (CASTAGNA y D`OTTAVIO, 2001; CASTAGNA et al. 2002b) no mostraron ninguna diferensa significativa entre las faixas etárias en el estudio por ellos desarrollado. Estos descubrimientos sugieren que los árbitros más viejos posuen rendimiento aeróbios semejantes a los mostrados por sus colegas más jóvenes.

PALABRAS-CRAVES: árbitro, fútebol, idad

QUAL SERIA A IDADE PARA O ÁRBITRO ENTRAR NO QUADRO DE ARBITRAGEM DA CBF?
RESUMO

Recentemente foi veiculada a imprensa nacional que por determinação da Comissão de Arbitragem da Confederação Brasileira de Futebol (CBF), a idade máxima para o árbitro fazer parte do quadro nacional seria reduzida de 35 para 30 anos, sendo que, esta decisão foi tomada sem a apresentação de nenhum embasamento científico. Assim sendo, o objetivo deste estudo foi verificar se há diferenças significativas entre a performance física de um árbitro com idade entre os 30 anos quando comparado com um acima de 40 anos. Para tanto, foi desenvolvida esta pesquisa de cunho bibliográfico, que utilizou como referencial teórico, artigos científicos publicados em revistas especializadas. Para testar a probabilidade de variações relacionadas com a idade de aptidão física e desempenho, Castagna et al. (2005) separaram por idade um grupo de árbitros. Após análise dos resultados, os autores concluíram que as distâncias percorridas pelos três grupos durante o teste de Cooper, não apresentavam diferenças estatisticamente significativas entre eles (p>0,05). Apesar de percorrer (cobrir) menos distância total e realizar menos corridas de curta distância, os árbitros mais velhos (43 – 48 anos) conseguiram manter uma distância média das infrações que era comparável às registradas pelos árbitros jovens (31 – 36 anos) (Weston et al. 2008). Pesquisadores espanhóis (CASAJUS e CASTAGNA, 2006), observaram que, tanto no VO2máx. quanto no teste de 12 minutos, as variáveis relacionadas fortemente com o desempenho na corrida durante o jogo (CASTAGNA e D`OTTAVIO, 2001; CASTAGNA et al. 2002b) não mostraram nenhuma diferença significativa entre as faixas etárias no estudo por eles desenvolvido. Estas descobertas sugerem que os árbitros mais velhos possuem desempenhos aeróbios semelhantes aos mostrados pelos seus colegas mais jovens.

PALAVRAS-CHAVE: árbitro, futebol, idade.