Functional Variables and Enzyme (CPK)to Skill of The main and Alternatives Players in Football (comparative study)

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Abstract

Football is a type of sport that attracts people's attention. So, it is necessary to look for everything that can improve its reality and develop it. The importance of this research paper is to have a look on the impact of competitions on functional devices, enzyme (CPK), aspects and the skills for the main players and compared with the substituted players in football. The study aims at identifying the level of some functional variables, enzyme (CPK) and the skills for key players and substituted players in football; identifying the differences in some functional variables, enzyme (CPK) and the skills of the key and substituted players in football. Descriptive method is used by researchers in a comparative way to solve the problem of the study. The number of sample is fifteen players distributed to two groups, the first group is the key players [9] and the second group is substituted players [6]. Also, the researchers used the SPSS statistical system to extract the results of the tests. The most important conclusions are: (1) competitions play an active role in developing the performance level, whether at the functional level or enzyme CPK or skills. (2) The role of CPK enzyme has increased after performing high physical effort and for a long time for the key players as a result of competition effort. Moreover, the following is the most important recommendations that the study has reached into: (1)It is necessary to participate all players in the competition, even periodically, so that substituted player can sense the atmosphere of competition and his active role in the development of functional and skills of the player .

Key words: *Enzyme CPK, The Main Players, Alternative Player, Football, Functional Variables*

Introduction

Sport is one of the civilizational landmarks of nations as well as the health, cognitive, cultural and economic aspects of sport. So, specialists in the sports field focused on investing all the sciences to serve the sports side to promote it and to achieve the goals. Football considers at the front of sports that bring great interest to nations because of the spiritual power, fun and special skills that it has. The study is laded to all the reasons that promote the reality of sports and affect the achievement including the internal functional variables of the human body and enzyme (CPK), as well as the skill aspects of the players whether the primary players or alternatives. The importance of the study is to have a look on the impact of competitions on functional devices , enzyme (CPK) , and the skills aspects for the main players and compared with the substituted players in football.

The problem

The problem of the current study is reflected in the lack of clarity , knowledge in most trainers, the cumulative effect of exercise, competition on functional devices on the enzyme (CPK),and the Skill aspects for main players compared with alternatives in football.

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The problem can be formulated with the following question: Does competition have a cumulative effect on functional variables of the enzyme (CPK) and football skill?

The aims of study

The study aims at:

- Identifying the level of some functional variables , enzyme (CPK) , skill for the main players and alternatives in football.

- Identifying the differences of some functional variables , enzyme (CPK) , skill for the main players and alternatives in football.

The researchers hypothesized that, there are statistically significant differences in some functional variables, enzyme (CPK) , skill between the main players and alternatives in football with favor to the key main players.

Study methodology and procedures:

Methodology

The researchers used the descriptive method in a comparative way to solve the problem of the study and to achieve its objectives. The descriptive method is the method that is concerned with collecting accurate scientific descriptions of the phenomenon studied and describe the current situation and interprets it. (1)

The data and community of study

The researchers choose the community of the study in a deliberate manner who are the players of the South Sports Club applicants category football for the sports season 2019. The number is (22) players. While the data of study is randomly selected after excluding (3) players as goalkeepers, also excluding (3) players, one of the main players and two

players from the reserve in a simple random way to be used as a reconnaissance. The data has reached the number (15) players distributed in two groups; the first group includes (9) main players and the second group includes (6)alternative players.

Tests and Measurements Used in the Study:

Functional Measurements

Heart rate (R.H) , the strike volume(V.S),and cardiac output (O.C) are measured in the resting time through the ECO device after lying on the medical bed for a period (3) minutes to stabilize the pulse after which the above variables are measured by the specialist *

Coenzyme CPK: The level of coenzyme (CPK) is measured by drawing a blood sample by a specialist and then laboratory treatment to find a coenzyme (CPK) in athletes.

Skill Testing:

Handling test: Wall rebound handling for 20 sec: [1]

-The purpose of the test: To measure the accuracy and speed of handling.

Foot scoring test on overlapping rectangles[2]

-The purpose of the test: To measure the accuracy of scoring.

Rolling test between five persons round trip: [3]

- The purpose of the test: To measure the ability of the rolling speed with the change of direction.

Survey Experiment:

The researchers conduct their survey experiment on Thursday (1/8/2019) in a sample which consist of (3) players. They are excluded from the sample after testing and measurements. The same test is repeated seven days later on the same sample and under the same conditions to ensure that the measurement is stable by drawing blood and in the same conditions for the two measurements, the calculated value (R) is (0.921), which is bigger than the value of (R) tabular value (0.767) at the level of significance (0.05).

The procedure experiment:

The tests are conducted on the study sample in the resting time on Saturday (3/8/2019) at nine in the morning at the hall of the South Sports Club and the steps were as follows:

- Recording the weight, height and age , then the laboratory lying on the bed for (3 minutes) , measuring the heart rate (R.H), the stroke volume (V.S) and the cardiac output (O.C) in rest mode through the ECO device after lying on the medical bed for a period of (3) minutes to stabilize the pulse after which the above variables are measured by the specialist*. Then, blood is drawn from the player (5 cm 3) by a specialist and treated in a laboratory to find the enzyme measurement (CPK) for athletes.- Perform skill tests for main players and alternatives. The researchers used the statistical pouch (SPSS) to process the data and extract the results of study which obtained from the measurements and tests of the study.

Presentation and Discussion of the Results:

Presentation of measurement results of functional variables and enzyme (CPK) for individuals of the data of the study

Table 1 : Shows the arithmetic media, standard deviations and the calculated T value of the main and alternatives players in football.

Measurements	Measuring Unit	Main Players		Alternative players		The Counted Value of T	Siq.	Moral
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation			
R.H	b/m	54.2	3.97	62.37	2.103	5.139	0.01	Moral
V.S	mm	91.7	1.98	74.58	5.00	7.105	0.04	Moral
O.C	l/d	5.08	0.23	4.2	0.30	5.59	0.54	Non-moral
CPK	L/U	30.25	1.77	21.10	0.57	14.01	0.003	Moral

The Discussion of Results

The researcher believes that there are significant differences in the level of functional variables and CPK enzyme regarding the players' level with favor to key players. The researcher attributes the reason for this increase to the fact that sports training and active participation in competitions with a maximum or near maximum performance level increased the efficiency of the functional devices. This is due to the cumulative effect of the functional devices of the players, including heart at rest as well as increased strength of the heart muscle and increased cardiac cavities, especially the left ventricle, which increased the amount of blood absorption returned to the heart . Thus, an increase in the size of the heart plus of blood, which gives an indication of Work obviously offset by the rise in cardiac output during rest Aboul-Ula asserts that "cardiac thrust can increase either by increasing the heart rate or by increasing the volume of blood paid per puls [1]. also, Fadhil Kamil stresses this stating that "regular physical training and competitions lead to an increase in heart rate reduction in rest as a result of physiological adjustment led to an increase in cardiac output of blood and that physical training leads to an increase in the volume of the batch or the amount of blood pumped by the heart in each puls"[2]. Further, the researcher states that there are no significant differences between the key and substituted players despite the development of the

players in the level of the volume of the strike to the fact that the volume of blood pumped per minute depends on two key elements: namely heart rate and blood pumped volume. Since the increase in the heart plus rate of the main players is lower as a result of the high adjustment leads to a decrease in the volume of blood paid while the increased heart rate in the substituted players increased the level of blood volume paid per minute as the rate of blood volume paid per minute is the result of Heartbeat in the volume of blood paid per minute.

The researcher attributed that the reason for increasing of the CPK.

enzyme as the result of training as well as performance in competitions in which the athlete uses high or semi-intensity. The effectiveness of the enzyme CPK is increased in the in the body to provide energy to meet the performance requirements of the player. This is confirmed by Abul-Ula Ahmed (2000) that the use of exercises with maximum or semi-maximum intensity with few repetitions and high performance speed will increase the activity and effectiveness of enzymes responsible for energy production and reconstruction during Anaerobic work because these enzymes work to break down and break down the chemical bonds of creative phosphate and carbohydrates or muscle glycogen[1]

Presenting and Analyzing the results of Special Skills Tests for the Members of the Research Sample.

Table (2): Shows the arithmetic media, the standard deviations and the calculated (T) value of the skill tests of the individuals of the research sample:

Tests	Measurement Unit	Previous tests		Post tests		T counted value	siq.	The Morale
		standard deviation	Arithmetic mean	standard deviation	Arithmetic mean			
Goal	0‹006	0‹35	2‹27	0‹52	4‹53	degree	10‹69	Moral
passing	0‹008	1‹84	8‹72	0‹62	10‹64	20/ times. Sec.	2‹95	Moral
degree	0‹03	1‹32	11‹20	0‹41	13‹56	Sec.	4‹151	Moral

Table (2) shows that there are significant differences in the skill tests between the main players and substitutes in football with favor to the main players. The researcher attributes the reason for these differences to the fact that the real participation of the main players in the game has increased the level of accuracy of the skill performance of the main players. The direct contact with the game and the players, which exposes the players to the performance of tensile and maximum or high in the game and different repetitions with the atmosphere of competition. Thus increased the drawing of a clear picture of the dynamic path of performance and thus increased the experience of the players as well as increased realistic solutions that occur during the game leading refine the skills.

Regarding the skill of passing, participation in the competition increases the ability of the player to pass accurately and for all types of passing. As a result of the requirements of collective play, which requires to transfer the ball from one place to another and from one player to another to maintain it refined the skill and accuracy of passing. The researcher agrees with (Ghazi Saleh, 2008) that the ability to use all kinds of handling and receipt during running, deception, scoring and sufficient strength in football competitions. There

should be a high harmony of some elements of fitness and technical skills in the play need that the player is qualified to absorb all modern plans as well as the ability to give in different conditions of play[1].

The scoring skill: the participation in competitions and friction with the players and the atmosphere of competition increases the experience of the player to perform the skill with high level and accuracy.

The researcher agrees with Saleh Radhi (1990) (the more the player's experience, the more he can aim at the right place and the right strength) [1].

As for the skill of rolling, competition requirements requires moving the ball from one place to another while maintaining it to gain space on the stadium or to implement a special plan or to make a new attack. High frequency increased the development of the skill ability of the player in the skill of rolling. Agreeing with Majid Sabar(2013), the researcher states that the use of quick exercises from different positions of the stadium and move from one place to another ball and the application of rolling and shooting, which increased the possibility of the player's skill.[2]

Conclusion

The researcher has concluded that: (1)the competition has an active role in the development of the performance level, whether on the functional level or CPK enzyme or skill, (2) The role of CPK enzyme has increased after performing high physical effort and for a long time for the main players as a result of the competition effort, (3) Increased cardiac output for the players especially for the main players improves the level of career and the role of competitions, and (4)There is a clear improvement in the skill performance of the test under consideration as a result of the refinement of skills and a clearer picture of the movement of the key players during the competitions.

The researcher recommends the following: (1) the need to involve all players in the competition, even periodically, so that the reserve player senses the atmosphere of the competition and the role of the actor in the development of functional and skill capabilities, (2) The need to compensate substituted players who did not participate in competitions with training modules similar to the performance in competitions to compensate players lost training units during competitions, and (3) the need to conduct periodic measurements of functional variables and measurement of enzymes and conduct tests for all skills to determine the level of key players and replacements.

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both MOH and MOHSER in Iraq

Conflict of Interest: None

Funding: Self-funding

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