



THE EFFECT OF PHYSICAL EXERTION IN DIFFERENT SPORTING EVENTS IN (INTERIEUKIN-6)

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Abstract

The introduction to the research included that physical education has had a significant share of the areas of development that included the various joints of life, where the athletic achievements jumped a qualitative leap due to the entirety of the research and studies aimed at elevating that achievement down to "optimal performance, and it is known that cytokines are among the variables that It is created from the system of the human body and it plays a big role in the balance of glucose sugar, including (Interleukin 6), which is involved in the processes of glycolysis during physical efforts, and thus it is considered one of the important variables that capture the interest of researchers to know its function accurately in the various physical activities so that the technicians of training programs can According to this chemical vision, while the research problem was summarized, scientists and researchers have always been engaged in everything new to serve the optimal achievement in the field of various sports in general and within the framework of the effectiveness of (volleyball and football) in particular, and given the lack of available information or lack of Its modernity, which ultimately serves to raise the level of these activities. The researchers decided to delve into this phenomenon and crystallize its problem through the answer. About the following questions:

What is the level of changes that can occur in the internal environment of the body among the members of the research sample in the immunological aspects related to (Interleukin 6) due to the effect of the physical exertion, while the study aimed to compare the individuals of the research sample according to the exerted effort with the levels of secretion of (Interleukin 6) in Individuals of the research sample. In light of the aim of the study, the researchers assumed the existence of a differential correlation between the level of (Interleukin-6) among the subjects of the research sample and the type of physical exertion.

Definition of the research

Introduction and Importance of Research

Studies have varied and their methods, which generally aim to address a situation or come up with results whose main goal is to achieve the aspirations of a human being who casts a mechanism in the field of knowledge or in other areas of life. There is no doubt that the product of human thought has been since eternity its primary goal to raise the value of man and his way of life and achieve his goal. With regard to all of the above, human perseverance in developing means of advancement in the field of physical education through research, verification and delving into all that is new may have a greater opportunity to achieve the goals of physical education, and after what most studies possess, he focused on the various sciences of physical education that are: In the form of loads taking into account their purpose. Realizing its excitement over the entire human body in order to improve organ function, which will inevitably be reflected in its sports productivity recently, focus has been on the study of biochemistry, which is considered one of the most important joints that can affect the vital activity of a person in general and sports in particular, and among the things that Studies related to the immune system have not been largely covered, or at least that these studies have limited the role of this system in warding off danger and confronting things that may cause diseases. The role of this device in the balance of the internal environment

of the body has been overlooked, especially during and after the various physical activities among the variables. Which are created from the human body system and play a major role in the balance of glucose with sugar activities, including (Interleukin 6), which participates in the processes of glycolysis during physical exertion, and therefore it is considered one of the important variables that capture the interest of researchers to know its function accurately in physical activities from In order to enable technologists of training programs to differ according to that chemical vision. Hence the importance of our research in shedding light on the aspects of biochemistry that play a distinct role in energy production, represented by interleukin-6.

Research Problem

The problem, which is the study, came about through the apparent scarcity of scientific research that belongs to the effect of the physical exertion practiced in (Interleukin-6), so I felt that the researcher delves into this phenomenon and develops its problem by answering the following question. What is the level of changes that can occur in the internal environment of the body among the members of the research sample (Interleukin-6) through the influence of exercises that are practiced and adapted to the activities under study under the influence of aerobic and anaerobic exercises?

Research Objectives

1. To know the concentration of interleukin-6 among the subjects .
2. Identify the effect of the physical exertion under study on the concentration of interleukin-6 among the subjects of the research sample

Imposing research

There are statistically significant differences for the two research groups in the tests used in the pre-effort and post-effort research.

Research methodology and field procedures

Research Methodology

The methods of scientific research are “that determine the scientific method that the researcher follows, as it is the basic tool for all information, imposing hypotheses and defining goals to solve a specific problem and reach it. [(1)] Therefore, the researchers used the descriptive method by the survey method.

Research Sample

The sample selection process is closely related to the nature of the community from which the sample is taken because it is that part of the community in which the tests are conducted and represents the community correctly [(2)]. Youth for the season (2019-2020), and 10 players have been implemented. The process of homogenization of the members of the research sample was conducted between two variables (height and weight). And chronological age and training age), and found that there is clear homogeneity in those variables, not for the individual research sample.

Means of data collection

Means the collection of evidence and tools used in the search

- Arab and foreign scientific sources and references.
- Tests and measurements.
- A form for recording the results of tests and measurements.
- Helping staff.

Machines and tools used in the search

- Conveyor belt device Treadmill
- Stopwatch count.(1)

- Height and weight measuring device.
- A medical injection to draw blood to a volume cc10.
- Tubes to store blood samples.
- Cool boxCool BoxTo transfer blood samples to the laboratory.
- Centrifuge (Centerfug)
- Computer type DEL

Determining the tests and measurements used in the research

After reviewing the sources, references and literature in the tests and measurements, the researchers reviewed the opinions of experts and agreed on the physical tests that fit the prevailing energy system of the two activities under study, and the anaerobic capacity test of the volleyball. The anaerobic (1) anaerobic test players (Cunningham and Falkens test) were selected while the football capacity of the two soccer players was tested.

Measures search field

The researchers conducted a variable examination by studying (Interleukin-6) for a sample of researchers of 10 players on the day of the example when I met (1/9/2020) in the hall of the College of Physical Education and Sports Sciences at the University of Maysan, where blood samples were drawn from the individuals, the research sample before doing the physical effort After that, the first group represented by the young volleyball players performed anaerobic physical exertion, and after 10 minutes of effort, blood samples were taken for these players while the other group, represented by the young football players, did an aerobic physical effort, after which the medical specialist conducted a blood sampling process. In the same way as the first group, then the blood samples were transferred to the laboratory of the Department of Life Sciences. Faculty of Science, University of Maysan, with the aim of extracting an interleukin-6 ratio in the blood of the subjects of the research sample.

(vR21) SPSS processors Statistical :Use the researcher's statistical bag statistical treatments

Presentation, analysis and discussion of the results

Display results interleukin 6 before and after the performance of the physical effort of volleyball players

Table (1)Shows the arithmetic mean, standard deviations, and value) tCalculated and interleukin-6 level before and after effort for volleyball players

indication	Sig	T	After the effort		Before the effort		measruing unit	Variables
			P	s	P	s		
D.	0.002	5.101	1.039	6.669	0.718	4.255	Pg / Ml	Interieukin-6

It is noted from Table No. (1) to study the differences before and after the physical effort of volleyball players that the arithmetic mean before the effort was (4.255) and the standard deviation (0718), while the arithmetic mean of the measurement after the effort. It was (6.669) and the standard deviation (1.039), while the value of (T) (5.101) was below the significance level (0.0 02), which means that there were statistically significant differences in the outcome after the effort.

Presentation of the results of interleukin 6 before and after the physical exertion of football players.

Table (2) Shows the arithmetic mean, standard deviations, and value) tCalculated and interleukin-6 level before and after the effort for soccer players

indication	Sig	T	After the effort		Before the effort		measuring unit	Variables
			P	s	P	s		
D.	0.030	2.822	1.147	5.575	0.951	3.826	Pg / MI	Interieukin-6

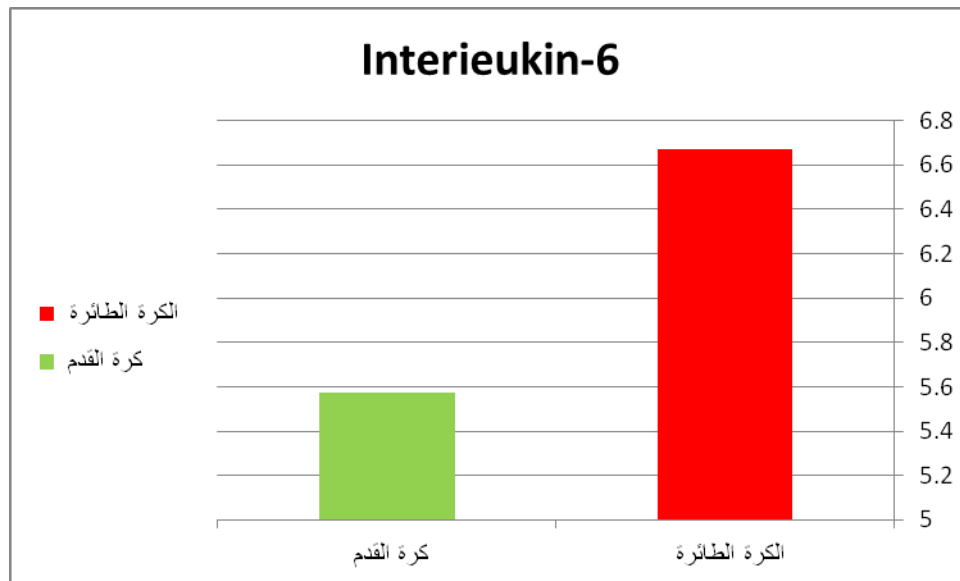
It is noted from Table No. (2) to study the differences before and after the physical effort for young soccer players that the arithmetic mean before the effort was (3.826) and the standard deviation (0.951), while the arithmetic mean for measuring after the effort. It was (5.575) and the standard deviation (1.147) while the value of (T) (2.822) was below the significance level (0,0 30), which means that there were statistically significant differences in favor of the outcome in the effort dimension.

Presentation of the results of (Interleukin) 6 -for the study sample after performing the effort

Table (3) Shows the arithmetic mean, standard deviations, and value) tThe calculated and interleukin-6 level after effort for volleyball players and soccer players

indication	sig	T	After the soccer effort		After the volleyball effort		measuring unit	Variables
			P	s	P	s		
D.	0.000	6.201	1.147	5.575	1.039	6.669	Pg / MI	Interieukin-6

It is noted from Table No. (3) for studying the differences of the study variable (Interleukin 6) after physical effort between volleyball players and soccer players, that the arithmetic mean after effort for young volleyball players was (6.669) and the standard deviation (1.039).). For measuring the distance effort in youth soccer effectiveness was (5.575) and the standard deviation (1.147), while the value of (T) (6.201) was below the significance level (0.000), which means that there are statistically significant differences. In favor of results after the effort of volleyball players.



A graph showing the arithmetic mean of the level of Interleukin 6 before and after the effort for volleyball and football players

Discuss the results of (Interieukin-6)

It is evident from the tables (1-2-3) related to the statistical coefficients of the study variable INTERLUCIN 6 that statistically significant differences were achieved after studying the differences between before and after the effort for the two groups under study. In between measures of that variable for the two groups after the effort. Researchers believe that these differences came about simultaneously. With the need to balance the internal environment of the body, which may be exposed to imbalances in its compounds as a result of physical exertion. NLK6 plays a role in rebalancing that environment as one of the indicators of the immune system. "One of the primary functions of the immune system is to restore balance to the body's internal environment affected by a set of external, internal variables." [(1)]. The researchers also believe that the variation in the concentrations of this variable is due to the need for the functions that I love them with I pledge efforts of physical loyalty and severity "white blood cells during the mofo phase site AlcetoKaanat from Palantrlukin-6 and interleukin-10 and tidier i course physical exercise efforts and intensity" (((1)) Inter Lokken 6 plays a distinct role in restoring the balance of glucose concentrations in the blood, which may change in the blood by studying Mmar with different physical efforts "Cytokines play an active role in blood glucose homeostasis through interleukin-6 and interleukin-10". ((2)) The researchers believe that the change in interleukin-6 concentrations as a normal result is in harmony with the physical effort exerted by the research sample, as this variable plays a remote and effective role in stimulating the liver to degrade glycogen. It is stored in the liver in order to increase its concentration in the blood in order to enhance its consumption in energy production. Through advances in the interpretations summarizing the contrast concentrations (interleukin-6) and its role in restoring the environmental balance of the internal body, the researchers see in Shatlaf ethical results between the two research groups that indicate the level of significance (0.002) has an individual volleyball player in a climate in which the energy system represents an anaerobic , And this depends on the formation of training loads on violent exercises, in which work requires more amounts of sugar during and after the efforts, which requires effective and important. The role of (Interleukin-6) to restore the balance of sugar and its participation in energy production processes. Where the researchers believe that this indicator came due to the increase in the concentrations of this variable as a result of the violent efforts

imposed by practicing the effectiveness of volleyball and adapting to it, and that the adaptation appeared through the implementation of anaerobic ability. While the researchers see the results of a group of football players, which showed in favor of subsequent tests after the effort was less than the significance level (0.030) and the other logical withdrawal and the nature of the adjustments to the efforts made in the framework. From this game that requires the formation of the load where the average level, as this effort requires the rapid depletion of sugar stores, which is reflected in the production of Interleukin-6 and its role in that. "Violent effort produces more IL-6 than any other physical effort." (3) It is known that high and low concentrations (interleukin-6) are associated with a high and low level of glucose in the muscles and blood through Table No. (3) to study the differences between the two groups, which have been shown in favor of a group of volleyball players below a significant level (.000) Researcher, Wen believes that the superiority of a group of volleyball players is linked to adaptations to the exercise of physical exertion and its reflection on g in different body parts from the side. On the other hand, the researcher sees in these results a reflection of the nature of the physical exertion represented by the tests that were conducted among the members of the research sample (tests of aerobic and anaerobic capacity for) as these treatments gave an accurate picture of sugar expenditures or the need for decomposition during and after the effort due to its contribution to production processes. Energy, which is involved in all vital activities during various sports activities.

Conclusions and Recommendations

Conclusions

1. The results of the study were not recorded in the interleukin-6 variant, ie a critical measure outside normal limits.
2. The nature, intensity and adaptation of exertion affect interleukin-6 and its blood concentrations.
3. The group of volleyball players was characterized by an increase in interleukin-6 production, compared to soccer players

Recommendations

1. The researchers recommend that the results of the current study be adopted in the legalization of practice training programs.
2. Conducting other studies on sporting activities and other age groups in the 6 Interleukin variables.
3. Adoption of functional checks as an objective indicator for shaping training loads.

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