Physiochemical Changes in Physical Activity in the Immune System to Prevent Corona Virus in Football Players

Raheem Abd Alwihed[1], Muzaffar Oraibi Baiji [2], Hamad Lahmood Taherh[3], Imad Kadem Yasser[4]

[1]Assist. Lecturer, Directorate of Education Thi-Qar, [2]Bachelor, AL Shatrah Education Directorate, [3]Assist. Lecturer, Directorate of Education Thi-Qar, [4]Prof., Physical Education and Sports Sciences / Thi- Qar University

Abstract

The practice of physical activity is of multiple benefits, including strengthening the immune system by increasing the effectiveness of the blood circulation that contributes to chemical and physical changes in many of the body's systems, including the immune system and through physical activity, the body needs greater quantities than normal to bridge the deficiency in which it is active. Minor and major blood circulation, as well as an increase in horizontal and vertical breathing processes, as well as an increase in the oxidized blood pressure to meet the need of working muscles, and therefore there is a clear change in the speed of improvement of the immune system from foreign bodies and the speed of disposal in proportion to the type and size of For the UFOs, the Corona virus is one of the most dangerous foreign bodies that cause harm or death to humans. The practice of physical activity for a period of (20-30) minutes daily contributes to improving the immune system and helps prevent this virus and other foreign bodies.

Keywords: *physical activity, rapid improvement of the immune system, prevention of corona virus.*

Introduction

Physical activity is one of the most important variables that changes in all the body systems, including an increase in the components of the defense cells in the body, including blood, and the defensive components it carries that help get rid of entry to foreign bodies and get rid of them, which provides the healthy side of the human being. When we talk about the immune system [1], we describe a complex network of cells, tissues and organs that prevent attacking germs such as bacteria, viruses, parasites and viruses for the body, the immune system consists of a group of cells, tissues and organs that protect fully, through specific functions to attack any enemy that invades the body, so how does it work this device? The secretions and fluids that come out of the body help push the germs out, and the enzymes in them kill the germs. Physical activity is one of its advantages of gaining muscle to strength and increasing volume by increasing the amounts of proteins. Zinc is one of the most important elements that [2] controls (DAN) It corrects the genetic mutations. Corona virus is one of the viruses that depend primarily on transcription processes inside (DAN). Therefore, the presence of zinc in its natural quantities prevents this reproduction caused by the virus inside the cells through a weak immune system due to the presence of a deficiency in the organ Immune to humans and therefore any harm to the skin or these tissues, cell damage, imbalance in secretions and fluids exposes the body to bacterial attack and ease of infection, and the importance of research lies in conducting some special measurements of zinc and testosterone that relate to the defensive side to assess the proportions of these components and show proportions of amounts from exercise Physical [3].

With regard to the objectives of the study, is to identify the affiliation of the components of the immune system among the members of the research sample.

The importance in this study lies in the changes that occur in the immune system as a result of exercising sports activity naturally without interference from the fatigue factor on the body, and the researchers have concluded through this applied study that practicing physical activity for a period of half an hour increases the effectiveness of the immune system in humans through changes What happens to the body, especially

the immune system, and these physical or chemical changes that work to combat foreign bodies that enter the body, including viruses [4].

Research problem: After the researchers familiarized themselves with many scientific sources, they noticed the lack of scientific research that gives the real proportions of the immune system that are obtained as a result of exercising physical activity in different age groups, especially among the elderly. In addition, the changes that occur as a result of the practice Physical activity The body gains many chemical and physical changes, including a change in the blood components, the formation of new blood cells, an increase in the proportions of hemoglobin, disposal of damaged pellets, strengthening the immune system in the body as a result of chemical and physical changes.

Methodology

The way a person reaches with a logical, scientific way consistent with reality is to perceive one of the scientific facts, which is the way to acquire true knowledge ... The curriculum is one of these methods that regulate the aspect or is the intellectual steps that the researcher takes to solve a specific problem.

Therefore, using the descriptive method in the survey method, as this approach is an appropriate approach for studying social phenomena, as it provides data on the reality of these phenomena and the relationships between their causes and results and an analysis of them, and may show the factors affecting it, and benefits from this by coming up with conclusions and recommendations regarding them.

d its sample:

The choice of method usually depends on the precise and objective solutions through which the problem is solved, so the researchers adopted the descriptive method in the survey method to suit it with the nature of the research. Therefore, the research community has identified one of the teams participating in the Football League for the period 2019-2020, and they are (30) players. A good selection of the sample is considered one of the important steps in the research as it removes the researcher from making mistakes, and gives scientific data in accuracy, and that the chosen sample "is a part that represents the community of origin or the model on which the researchers conduct all of his research axes (1), 1, and has been done Selecting the parent community as a sample for the research intentionally. The percentage of the research sample formed (100%). The researchers conducted homogeneity for the sample members before practicing physical activity, as shown in Table (1)

Table (1). Arithmetic circles, standard deviation, median, torsion coefficient, and test as a mangrove mantrov to determine the proper distribution of the sample at the normal level.

Variables	Measure	Mean	S.D	Kolmogorov -Smirnov	Sig
W B C	L\10^9	4.361	0.434	0.297	0.106
Neutrophlc	L\10^9	44.76	1.602	0.201	0.200
Lymphocyte	L\10^9	25.02	0.861	0.251	0.210
Monecyte	L\10^9	3.108	0.706	0.267	0.205
Eosinophie	L\10^9	2.533	0.403	0.120	0.211
Basophile	L\10^9	0.290	0.116	0.235	0.200

The devices and tools used in the research:

1-The blood separator (CENTER FUGE) speed 4000 rpm.

2- Medical injections, number (15), capacity of 10 cc.

-3 Plastic tubes, size (5) CC, number (15).

4- Medical cotton.

5- Sterile material.

6- Cooling Portfolio (COOL BOX).

7- A Japanese-made / Japanese-made white blood cell analyzer

Measurements used for the immune system:

* Measurement name: WBC.

* Measuring Purpose: Number (WBC)

First: The tools used for work ...

(1)) glass container for preparation of solution (2) - automatic pipette (3) slice of counting ... hemocytometer

Second: How to prepare the solution for the analysis ...

- This is done by adding (20 ml) of solution (Glacial acetic acid).

- With (from 1 to 2 points) from (methylene blue) .

Third: the method of measurement.

1- (20 microns) of blood + EDTA is placed in a test tube, (2) (380 m) of the prepared solution is added. To the blood in the test tube ..

,(3)) The sample is thoroughly mixed for a period of two minutes. ,(4) (20 m) of the mixture is taken by an automatic pipette ,(5) They are placed in the count slide, the hemocytometer. ,(6) White blood cells are counted in 4 squares with a microscope using the 10x lens.

Fourth: How to calculate white blood cells.

(1) The number of white blood cells in the four squares ... and they are multiplied by the number (50) fifty ....

Fifth: precautions to be taken. To ensure correct results.

(1) The absence of air bubbles in the counting slide. (2) After the sample is placed in the counting slide (3) .. it must wait for two minutes for the cells to settle and thus the ability to count them in a correct way. (4) From two minutes in order not to dry the solution .

The main experiment:

The main experiment was carried out on (15/3/2020) This experiment was conducted on the Olympic Olympic Swimming Pool Indoor in the governorate of Baghdad and the test was applied to the research sample and with the help of the assistant work staff as the time was measured for the chest swimming test (50) meters for the members of the research sample. On the second day, functional measurements were made

Statistical means:

The researchers used the statistical bag (spss) version (20) to extract the search results.

1- Arithmetic mean., 2- Standard deviation., 3- KMNGROV Test – Law, 4 (T) of Linked Samples. ,7- Development rate.

3- Presenting, analyzing and discussing the results:

In order to achieve the goals of the research and its statistical hypotheses to identify the amount of improvement in the immune system, the researchers presented, analyzed and discussed the results after they were statistically processed from the results of the pre and post measurements and after completing the application of the training curriculum.

Table (2). Shows the arithmetic mean and the standard deviations of the pre and post tests and the degree (T) calculated for some blood components among the individuals of the research sample.

Statistics							
Variables	S.E.M	Posttest 1		Pretest2		(T)	Sig
		X	S ±	X	S ±		
W B C	0.529	4.36	.434	8.49	.630	19.11	.000
Neutrophlc	1.752	44.6	1.60	64.8	4.92	11.02	.000
Lymphocyte	1.531	25.0	.861	39.8	3.70	10.25	.000
Monecyte	1.034	3.10	.706	8.88	.905	13.67	.000
Eosinophie	0.766	2.53	.403	5.53	.607	9.608	.000
Basophile	0.052	.29	.116	.863	.081	10.83	.000
Df	29						

Through the results that were reached through the practice of physical activity for a period of (20-30) minutes and conducting a direct examination, there are positive results for the immune system to divert the members of the research sample and the researchers believe that the increase in white blood cells in this activity gives an indication of an integrated activity of the blood circulation In the cells of the body, which generated reactions to the protection system of foreign bodies by increasing their number in order to increase the increase of the body's resistance to foreign bodies and maintain the integrity of the body despite the fact that its increase was close to exceeding the upper limits of the percentage of red blood cells that were measured transversally, [1]

The researchers believe that one of the most important things to get rid of the Corona virus is the exercise of physical activity that gives the body physical and chemical changes commensurate with the increase in blood circulation through this practice, which has a set of benefits for this device, which is the optimal defensive condition in humans and is formed and has multiple forms of them Main and other secondary in the human body and its function is to protect the whole when any harmful part enters the body through chemical processes that occur inside the body and according to the nature of the foreign body so that it can get rid of it as quickly as possible.

The researchers believe that the practice of physical activity for this period of time, in which the main components of the immune system were measured, and the results of the research showed in its positive form results from an increase in the blood circulation that helps in an increase in the flow of quantities of blood due to the need of the body where the effort requires to this amount of blood, where it confirms "Any effort, regardless of its level or level, the body needs an appropriate amount of blood" [2]. The researchers also attribute during the period of this activity changes in the disposal of damaged blood cells occur and the body has new blood cells as a positive case through an increase in the heartbeat as a result of the body's need for them and therefore these changes that are accompanied by the presence of an amount of oxidized blood that the body needs during physical activity Where he stressed that "the body during the exercise of any type of physical activity changes in the blood circulation to replace oxidized blood instead of non-oxidized" [3], and the researchers also see that the exercise of physical activity during this period and with increased heart rate requires the body to have quantities of O2 where There is an expansion in quantities From the air the body needs, an expansion of horizontal and vertical breathing operations occurs through the diaphragm and chest cage to meet the body's need for

O2, and that both breathing processes saturate the body with oxidized blood in order to nourish the muscles and work in proportion to the effort exerted and indicates "the more breathing operations are provided The body with oxidized blood [4], and the researchers believe that these changes that occur during physical activity have a significant role in increasing the immune system interaction in several ways, including the increase in the movement of white cells by increasing areas inside the blood platelets through damage to invalid blood cells and the formation of New red blood cells are more effective, and on the other hand, the speed of sensitization in white blood cells to foreign bodies that enter or exist within a body, and thus the immune system will be in its positive fullest way to get rid of any foreign body inside the blood components.

The researchers believe that the immune system as a result of these changes that start its chemical effectiveness starting from the rise in the temperature of the cell as a result of physical activity and similar chemical reactions leads to stimulation of white blood cells to speed the orientation towards harmful bodies through the formation of antibodies appropriate to the nature of the harmful body or inside the body The human being in order to be able to devour it or get rid of it and this aspect is positive, and since the Corona virus does not have the ability to reproduce unless there are other factors that help it to reproduce because of its protein formation, so it has access to weak points inside the body that can interact with Here, in order to perform the process of fission inside the DNA, and thanks to the chemical and physical changes that activate the immune system through the speed of its movement, as well as an increase in its response time to sensitivity from foreign bodies, and this is due to physical activity, so it is easy to get rid of this type of virus through a simple exercise of physical activity that strengthens immunity. The human being is protected from harm that could lead to an individual's life without justification.

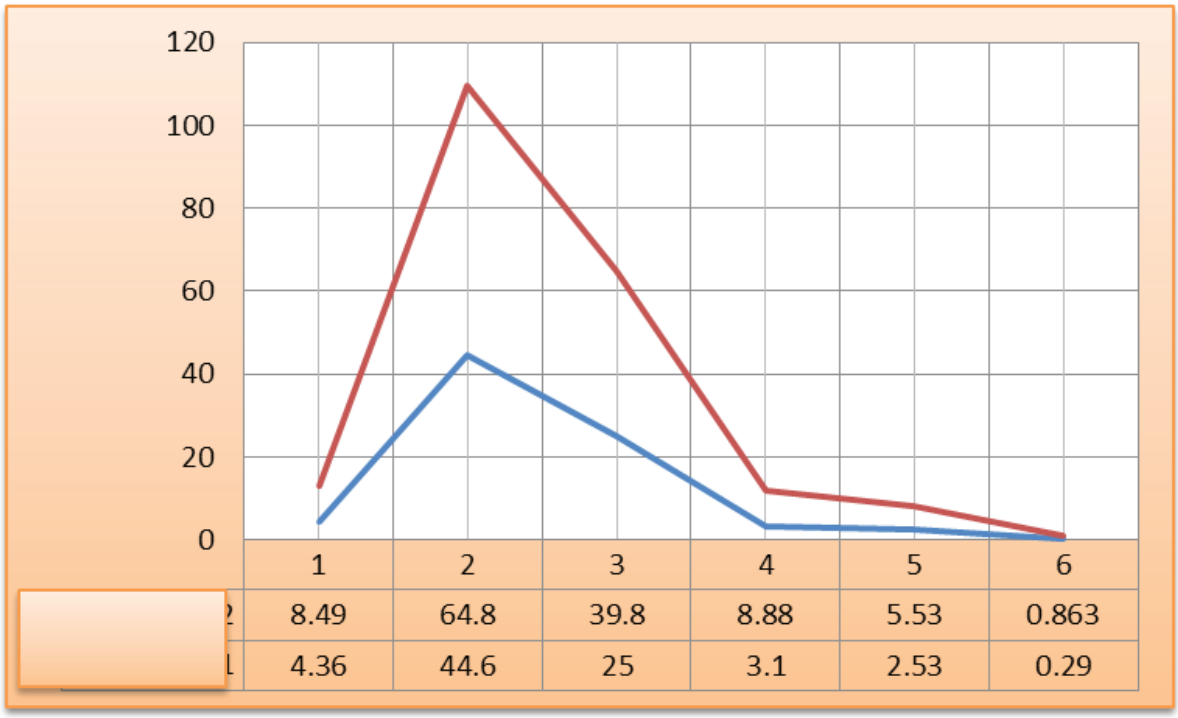

Figure (1) shows physiochemical changes after physical activity

Conclusions

Through the findings of the researchers in this research, we review for you the findings of the researchers in the form of physical and chemical changes that are shown in the following graph that shows the amount of improvement of the immune system in the body as a result of exercising physical activity during a period (20-

30 minutes) that helps the body In getting rid of foreign bodies as a result of stimulating and strengthening the immune system through physical activity.

Recommendations.

Researchers recommend practicing regular activity continuously without interruption, for the general benefit of this activity. It protects the body from many chronic diseases, among others, as well as leads to new adaptations within the body, including the immune system and the rest of the other body systems.

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Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved under the Directorate of Education Thi-Qar and all experiments were carried out in accordance with approved guidelines.

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