



Effect of competition load in basketball Game in Immunological proteins (IGg ,IGM , CRP)

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Abstract

This search consists of five chapters, first chapter includes definition of research , preface and importance of research , also it includes taking for the competition stage infringement from most important sensitive stage during training season for basket ball Game for arrival the players better case (physical , functional , and psychological) adding to adverbs difference for players during these time field , and what follow that from changes in systems of body with public and Immunological system specially. Importance of the research is not of necessary all that changes cause with interest for players , but in same time we find these increasing level of immunological protein (IGg) (IGM) raise from defence of body for different of diseases , we find that increasing in Immunological protein (c-reactive protein) ((CRP)) to mean happening failing in heart muscle and some other body muscles. The problem of the research is represented by inspite of from great importance for the immunological system in body with keeping on the player's health and that will ensure continuity on training organized , we find littleness of studies and researches that study effect of competition load in immunological components effect of competition load in immunological components with public and immunological proteins (under study) specially. Aim of research is knowing on effect competition load in basket ball game in immunological proteins (IGg ,IGM, CRP). Hypothesis of research that for competition load in basket ball game effect on immunological proteins (IGg , IGM,CRP). Third chapter included methodical frame and its practical procedures , the researchers used descriptive methods to solve the problem of research , researchers specify the community of the research with basket ball team of Al-HILLA-advanced players sample of research (12) players which was chosen comprehensively. Most importance of research conclusions: Activity of immunological protein increase for basket ball players when training with high load such as competition load . in same time do n't happen any changes with activity of immunological protein (CRP) when training withe the same load. And the researchers had recommended with necessary implementing checking circulatory for players with organizer and continued method.

Keywords: effect of competition load, Immunological proteins, basket ball.

Introduction

Tended scientific research towards the study of different applications for Science Pure including chemistry and science Physiology sports in all areas of sports as these science of fundamental importance in the development of training facilities and assessment methods and knowledge of the responses that occur while practicing sports activity and beyond, and contribute to raising the standard of sports.

Increased attention of scientists and researchers in the field of sports since short-term different sciences and try to link them in sports and this science of immunology as addresses the different ways that can out athlete of protecting itself against different diseases during workouts or competitions of his career, has included studies in this section immune cells , as up blood and its content of antibodies to components of the cell, and associated Multi immune closely in the field of training and preparing for the competition, as is competition phase of the most important stages sensitive during training season for the game Basket ball due to reach sports to top physical condition and functional, psychological, as well as diversity conditions experienced by the players during this period and the concomitant changes in the organs of the body in general and special immune system.

That these changes is not necessary that all in the interest of sports at a time in which we find that the increase in the level of proteins immune IGg IGM, increase turn of the body's resistance to different diseases, we find that the increase in protein immune CRP (C-reactive protein) indicate a malfunction in the heart muscle and some of the other muscles of the body, which caused the increase, and Research Problem Her many studies in the field of physiology sports studied the impact of physical exertion on the various body organs such as (circulatory and respiratory etc. ..), but few studies have tended to study the effect of physical effort on the immune system and mostly focused on the impact of training modules on the components in immune body. While studies lacked to an effort impact competition in basket ball on the immune components and immune proteins (under study) and whether the effects of training units similar to the effort to compete in the immune components. Therefore felt researcher delving into this problem to identify those influences, which helps to provide advice to the athletes in this area, which ensures the health of athletes and keep the structured training , the Aim Of Research Aim of research is knowing on effect competition load in basket ball game in immunological proteins (IGg ,IGM, CRP) , and the Impose Search Researchers assumed that to load of competition effect in the immune proteins(IGg , IGM , CRP) to the basket ball player ,the Fields Of Research The Human Sphere players Al-HILLA-advanced Sports Club basket ball - a class of applicants , and Spatial Domain: Hall of college of physical education and the Public Health Laboratory in Babylon .

1. Methodology

Search curricula several vary depending on the type of study and its objectives, and the researcher are descriptive approach and style survey Bouktoath scientific suitability of the nature of the research problem and objectives descriptive is "perception precise interrelationships between society and the trends and tendencies and desires and evolution where gives search the image of the reality of life and the development of indicators and building predictions for the future (Wajih Mahjoub , 2002).

1.1 Community And Sample Of Search

Research community were identified Al-HILLA Sports Club team basket ball - a class of applicants for the excellent degree and numbered (14) player, and they represent one of the Premier League clubs basket ball sports season (2012-2013). Has been selected all the players in a comprehensive inventory, with the exception of players are goalkeepers because of the variety of effort during the game. Bringing the total number of samples (12) players, which accounted for (85.7)% .

1.2 And Data Collection Methods And Devices Used

*Centrifuge (center fuge) is used to separate components of blood, where they are from which to obtain serum (serum) spins this device quickly (3000) rpm. (Japanese-made).

*A magnifying glass and are included for the purpose of measuring the immune proteins . Absorbents microwaves (German-made type).

* Cotton + sterile solution + Tubes + cooling Fund (coll box) for the transfer of blood .

* immune proteins)IGg, IGM, CRP((kit) imported for the purpose of measuring .

2.3 Exploratory Experiment

Exploratory experiment was conducted on a sample of the club team category applicants Altathamon . The number of exploratory sample (5) players. The purpose of the experiment was to know the constraints and reconnaissance negatives researcher may face while working and identify the extent of the safety and validity of the equipment and materials used in the research and make sure the efficiency of team assistant and trained in how to perform their duties. This has been withdrawn blood samples of the players to make sure of the mechanism for withdrawal of blood and efficiency of the medical team.

2.4 Measures Search Field

2.4.1 Identify Research Variables

earch variables were identified namely the immune proteins IGg , IGM, CRP.

2.4.2 Experiment Home

The researcher conducting the experiment Home in official matches held by the Central Union Basket ball League qualifier for the season 2012-2013 and by Al-HILLA club team matches as shown below -:

Al- Hilla X Alkahrabaa

Al- Hilla X Alsorta

Al- Hilla X Duhok

The main experiment included the following action

2.4.3 Tribal Procedure

Ensure action tribal withdraw blood samples from players by (cc 5) of each player from the research sample before the start of the game so that players at rest fully and without exercising any physical effort, has been drawing blood by a medical team and vein in the arm, then draining the blood from the injection to Remember pipeline blood (tubes) and numbered B1-B12 Recalling B to draw blood and all tribal ETT matched player's name in the registration for After completing the process of drawing blood and putting it in the pipeline, the researcher moved to the laboratory for the purpose of separation and extraction of serum by a blood separation device. It then pulls serum and placed in the tube is empty (Tube) carry the same number of tube keeping the blood and then saved in a box cooling (COLL BOX) and transferred to the Public Health Laboratory PHP Babylon for measurements standard proteins immune (IGg, IGM, CRP) .

2.5 Statistical Analysis

Ensure dimensional measure the process of withdrawing blood from the players participating in the games immediately after the effort, and the same procedures for the process of withdrawing blood in the pre-test.

2.5.1 Laboratory Procedures

After that process was drawing blood, was transferred to the Public Health Laboratory - Babylon, where it was the process of separating blood samples for serum for measuring proteins by immune system (center fuge) and rotation speeds (3000) r / min. For immune proteins IGg, IGM was measured by adding (micro letters5) of each sample to the pit of pits Albulath for measuring protein IGg immune protein immune IGM and according to the instructions that came with each cut. And after 72 hours are reading through a magnifying glass containing a ruler included, are measured serum Qatar spread around the crater. And through access to raw class for each sample by comparing the degree of raw scale scores standard (standard carve) for these proteins are obtained on the real degree of concentration level of immune proteins, IGM IGg.

As for measuring the level of immune protein CRP ye meet through the addition and mixing (micro 25 letter) from the serum of each sample to a special slide and then add (25micro letter) from the private writers to serum in slide then Mzjhma together oval movement and read the results .

2.6 Means Statistical

The researcher used the following statistical method (laws based statistical system (SPSS) and using the computer) - Mediator - Deviation Rubaie -Test and Cookson

3. Results and Discussion

3.1 Display The Results Of The Immune Protein (Igg) In Pre And Post Measurement, Analysis And Discussion

Table 1

Shows median values and deviation Rubaie of the immune protein (IGg) in pre and post measurements and calculated values Cookson and tabular and significant differences between the two measurements

Significance	Value	Measurement	Measurement	Changing		
	*calculated Cookson	Dimensional	Tribal			
		deviation	median	Deviation	Median	
Positive	0	20	1020	35	950.5	IGg

At a significance level of (0.05) and the size of the sample (12) amounted tabular cookson . *13

The normal immune protein IGg ranging from 900-1800 mg/dl (samea Khalil ,2006) .

Seen from the table (1) median values and deviation Rubaie of the immune protein (IGg) in pre and post measurements. As the value of the mediator in the tribal measurement (resting state) (950.5) and deviation spring (35). Either in the dimensional measurement amounted mediator (1020) and deviation spring (20). For the purpose of testing the significant differences between pre and post measurements, the test was used and Cookson. The results

showed no significant differences between the two measurements and for dimensional measurement. The researchers attribute the cause of the moral differences between pre and post measurements of voltage competition that the immune protein (IGg) constitute the bulk in the blood plasma as it constitutes more than 75% of the immune proteins being important to resist the effects UFOs. So you get a significant increase in the immune protein (IGg) This increase is associated with physical strongly pregnancy and which is here carrying competition and intensity up to 100%. In addition, the sample are first class players basket ball and training them the age of at least (7 years), which cause adaptations in the immune protein (under study). This is consistent with what it says (Tuede 1989) and in between he was "severe lead exercises in the course of regular training to the change in the level of immune protein concentration (IGg) and thenlead to increased . Also with what it says (Ali Jalaluddin 2006) in the regular active muscle activity factors the body's natural defense and immune stabilize his condition. The mechanism (Almikanezm) in raising the standard of basic immune status in the production units (sets) bloody defensive quality such as (Albrooberden) and (serological Alklopjulinat defense) and defensive protein vaccines1(Ali Jalaluddin , 2006).

3.2 Display The Results Of The Immune Protein (Igm) In Pre And Post Measurement, Analysis And Discussion

Table 2

Shows median values and deviation Rubaie of the immune protein (IGM) in pre and post measurements and calculated values Cookson and tabular and significant differences between the two measurements

Significance	Value *calculated Cookson	the two measurements				Changing
		Measurement Dimensional		Measurement Tribal		
		Deviation	Median	Deviation	Median	
Positive	0	115.1	292.05	108.8	106.05	IGM

.At a significance level of (0.05) and the size of the sample (12) amounted tabular cookson 13

The normal immune protein IGM 60- 380 ranging from 900-1800 mg/dl

Seen from the table (2) median values and deviation Rubaie of the immune protein (IGM) in pre and post measurements. As the value of the mediator in the tribal measurement (resting state) (106.05) and deviation spring (108.8). Either in the dimensional measurement has reached the median value (292.05) and deviation spring (115.1). For the purpose of testing the significant differences between pre and post measurements, the test was used and Cookson. The results showed no significant differences between the two measurements and for dimensional measurement. The researchers attribute the cause of moral differences between pre and post measurements immune to the characteristics of the protein (IGM) as

this protein of immune proteins Links where stimulus influenced very nervous stimulation - muscle, leading to increased concentration in the blood when exposed to muscular effort. The emergence of moral distinctions here agree with what it says (Kamal Abdel-Hamid, Abu Ola Abdel Fattah 2001), quoting wept Lipkina in the increased access to certain immune proteins concentrations as a result of regular sports training (Abu Ela Ahmed, Kamal Abdel-Hamid ,2001).

And confirms (Ali Jalaluddin 2006) that activities muscle regular active factors natural defenses of the body and the stability of his immune The mechanism (Almikanzm) core in raising the immune status in the production units (sets) bloody defensive quality such Albrooberden and Alklopjulinat serological defense.

2.3 Display The Results Of The Immune Protein (CRP) In Pre And Post Measurement, Analysis And Discussion

Table 3

Shows median values and deviation Rubaie of the immune protein (CRP) in pre and post measurements and calculated values Cookson and tabular and significant differences between the two measurements

Significance	Value *calculated Cooksonl	Measurement		Measurement		Changing
		Dimensional	Tribal	deivation	Median	
Negative	1.414	0.1	0.6	0.1	0.55	CRP

At a significance level of (0.05) and the size of the sample (12) amounted tabular cookson 13

The normal immune protein CRP (0.1 – 0.6)mg/d ranging from 900-1800 mg/l
 Seen from the table (3) median values and deviation Rubaie of the immune protein (CRP) in the pre and post measurements as the value of the mediator in the tribal measurement (resting state) (0.55) and spring deviation (0.1). Either in the dimensional measurement has reached the median value (0.6) and vernal deviation (0.1) For the purpose of testing the significant differences between pre and post measurements test was used and Cookson. The results showed no significant differences between the two measurements.

Attribute the researcher why you do not see significant differences between the two measurements (tribal - dimensional) that this protein does not increase in the blood, but if there is inflammation in the body and a sharp rise in pressure or blood sugar, as well as the rise protein (CRP) in the blood significantly when injury cardiovascular diseases such as myocardial infarction or any other defect that affects the heart muscle (www.123esaaf.com) , Despite the high voltage up to 100% in an effort to compete in a basket ball game and reflected the high requirements on your heart and blood circulation in the increasing need of working skeletal muscle and heart muscle of oxygen and at the same time put the second increase arbon dioxide CO2 in the muscles and into the blood note not to increase the concentration of this protein in the blood, and it is due to the adaptations of high devices functional sample search result regularity in training for a long time because they are a club

in the Premier League basket ball which helped to bear the heart muscle to the effort of physical and higher non-the occurrence of any defect in the work through a competitive effort. This is consistent with what it says (Ali Jalaluddin 2006), which indicated that the heart muscle adaptive training facility gaining high ability constriction, in addition to maintaining a high capacity also relax in the diastolic phase during the high rates of heart frequency. And improves metabolic processes in the heart muscle and do not suffer heart muscle is a lack of oxygen needed during a tense physical labor as a result of increased density network of capillaries in the heart muscle. Do not suffer heart muscle shortage of oxygen required during a physical labor tense as a result of increased network of capillaries in the heart muscle, and therefore less pregnancy career unit heart block, and thus being bear heart of the loads those physical at the expense of the ability of less than job strain.

4. Conclusions

1. protein concentration increased immune antibody or the so-called IGM, IGg the basket ball players when exposed to carry high intensity such as carrying competition.
2. does not make any change in the concentration of immune protein CRP's basket ball players after exposure to induce high intensity such as carrying competition.
3. reflect the above conclusions clear adaptations of functional devices to the players in general, and the immune system and the heart and circulatory system, particularly in afford effort competition in basket ball .

References

- Abu Ela, Ahmed Abdel Fattah, Kamal Abdel-Hamid.(2001). health education for athletes. i 1. Cairo Egypt. Arab Thought House.
- Ali Jalaluddin,(2006). the physiological basis of kinetic activities. Egypt. the center of the book for publication.
- Osama Riad,(1999).Sports Medicine .basket ball. i 1. Cairo – Egypt. the center of the book for publication.
- Took over. T. Puri,(1980). Bsaút science immunology. translated by Mohammad Haytham al-Khayyat, Milan – Italy. Delphine Publishing House.
- Saad Eddin Mohamed Irons,(1993). immune - the body's defense strategies - Alexandria . Egypt. facility knowledge for Printing and Publishing.
- Samer Khalil Muhammad ,(2006). health education for athletes, Baghdad, Baghdad University Press.
- Tariq Saleh al-Zubaidi, Fuad Hussein, Mahmoud al-Bayati,(1991). Immunology and mouth disease. Baghdad. House of Wisdom.
- Tuede, n, pedersen, B.K., Hansen T.R, Bendix. T, Christensen,(1989).on blood mononuclear cell subpopultions amd in. vitro proliferative responses. Scandinavian of Immunology 29.
- Wajih Mahjoub,(2002). scientific research. Curricula. Baghdad. the National Library of Printing and Publishing. 2002 p 267.

<http://intl.jbc.org>.

www.123esaaf.com.