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A comparison of fatigue removal speed for some physiological and biochemical indicators of Fencing and Arab sword players

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Abstract

The study aimed at the development of a scientific basis is correct when selecting some means of training to remove fatigue through the use of the proper exercise of calm during the training dose during the iterations of these means working to help the player to get rid of the effects of fatigue, including a n game fencing is located within the mixed system with the beat anaerobic system by more of the antenna system, so it requires the development of energy systems for players n and the ability to withstand high levels of acid to your children in the muscles and blood and increase the associated pain as a result of fatigue that occurs during the performance , research methodology: the Choose the sample purposively team players young people to Epee totaling (5) player, and team players the sword of the Arab and the number (5) player , used tests look first : the equation of fatigue, pulse rate at rest and after effort, measuring the concentration of acid , lactic in the blood after the effort, the tests Alp a Yukemiaiah Second test of urea , testNa, Test KTest CL, Test PhosphorusIt has been conducting tests of the variables surveyed after the training program finishes were accreditation training program prepared by the coach , and after collecting the results used researcher bag statistical to interpret the results , concluded the researcher Th : players Epee preference in the index of muscular fatigue tests , pulse rate at rest and after rest, and measure L- benic acid for the benefit of the Arab sword group within physiological indications and tests (urea test, test Na, Test K. Test CL, Test Phosphorus) Within the biochemical indicators for the Epee group recommends a researcher of : the need to emphasize the training programs and rapid removal of fatigue dissuading periods of numbers , public and private competitions.

Keywords: *index data, physiological, biochemical - players' epee - sword Arab*

Introduction

That support the process of planning training sports on according to sound scientific determinants of this planning, which must be adhered to avoid interpretations or improvisations of the ill - considered, which calls to increase interest in choosing the type of training method which should be the need for a real , according to those requirements in order to avoid the loss of efforts , it must take into account the simulated reality training in order to achieve the required goals to the fullest extent taking into account the economic principle in the various aspects or possibilities, where Anne numbers of physical and functional body organs great importance to reach the best sporting achievements, Vtdrebat sport fencing depends on the development of scientific training programs and inhalers to develop Sports and the level of access it to the highest levels since they must take into account periods of rest between the duplicates and remove remnants of fatigue and the arrival of the sports to the stages of adaptation Alvesaolo ing in order to achieve the desired goals (Shaker, 2001), and

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the sport of fencing with specifications of its own and the requirements that need to the development of some physical attributes And its own energy systems for winning points, which are won by whoever collects more points by touching his opponent with the sword in His body during the period of collecting touches and bearing the exerted effort , and due to the peculiarity of each tool in the game of fencing in recording the touch and accuracy of the target, as the difference in the areas of touch each of the snipers is the target in the area of the torso, chest, back and abdomen triangle, while the sword weapon is the target, the upper part of the body includes The trunk, head and arms during the race to achieve a touch on the opponent , so the use of means to remove fatigue and other means that work to help the athlete get rid of the effects of fatigue and since the sport of fencing falls within the mixed system with the anaerobic system prevailing by more than the aerobic system, so it requires development Energy systems commensurate with the fencing game and their ability to withstand the high level of lactic acid in the muscles and blood and increase the associated pain as a result of fatigue that occurs during performance , so the importance of research lies in making a comparison to know the speed of removing fatigue for some of the physiological and biochemical indicators of the Arab sword and fencing weapon players (Iyad, 2010) .

Research problem

The interest in the continuous renewal of the type of training taking into account the specificity of the game and the individual differences of its players according to the determinants of the principles of sports training and in a way that is not exaggerated, that is, it mimics the training reality that must take into account the type of the age group of the players and their gender, and that keeping pace with the rapid development in the achievements of the sport of fencing and due to what it enjoys With the researcher from experience in the field of sports and training in the field of game, there are several factors that affect training, including the use of training methods, as each method has its own characteristics that distinguish it from the other, and several studies have been conducted on some of these methods, physiologically and trainingly, for the purpose of the development of their use to be More influential in the level of achievement, and the rate of accumulation of lactic acid in the muscles and blood is one of the most important indicators influencing the sport of fencing for the Arab shisha and sword players , and that these indicators create a good atmosphere for the coach and the athlete to help him train safely, so the researcher decided to make a comparison of the speed of removal fatigue some physiological indicators Alba j and chemical players epee Arab sword.

Research objectives

1- Identify the speed of the removal of fatigue for some of the indicators of physiological and Ca of Yukemiaiah players young b Epee Arab sword.

2- Identifying the differences in the speed of eliminating fatigue for some physiological and biochemical indicators of the youth players with the shear weapon and the Arab sword

Research methodology and field procedures

Research Methodology: chose the researcher of the curriculum descriptive quasi - experimental to the suitability of the research problem.

The research community sample : The researcher of the selection of the sample purposively from the player the team of youth and the adult population (13) , divided as follows: b Epee and totaling (5) player , and players of the Arab sword , and their number was (5) player , and (3) players to experience the exploratory and out of the research sample , conducted a m homogeneity and the results showed heterogeneity by low coefficient convolution for (+1) This is a ' good' indicator and the sample is therefore homogeneous.

Table (1) shows the characteristics of the individuals of the research sample

Variables	measruing unit	Arithmetic mean	deviation	Mediator	skewness
Age	Year	16.28	0.48	16.00	1.24
Length	cm	164.43	1.51	165.00	0.62
the weight	Kg	65.71	0.76	66.00	0.96
Age of training	Year	7.6	7		

Devices and means used : Arab and foreign sources and references, medical scale, medical syringes to draw blood, count (10), tubes to preserve blood, count (10) , tube holder, medical cotton, coolant, sterile material, kits to determine the level of lactic acid in the blood capacity (50)

Tests used in research

1- **Physiological tests:**

First: The Pulse at Rest: (Kamal, 1 998)

Second: The Fatigue Equation: (IAD, 2010)

Third: Measuring the percentage of lactic acid concentration after exertion (Shaker, 2001)

2. Biochemical Tests

First: Na test

Second: K test

Third: CL test

Fourth: Phosphorus Test

The field procedure : The analysis was carried out under medical supervision, and the necessary medical materials were prepared, which are special syringes to draw blood for each player, as well as a special tube to keep blood (tube) that contains (anticoagulant), as well as a preparation for medical cotton, a sterilization material and an arm band as well as a small box containing Snow to save the tubules after the blood was drawn to transfer them to the place of analysis. As for how to draw blood, the players for whom the analysis will be performed was first identified with a special form for giving a sequence to each player after the end of the training program for young players with the hook and Arab sword.

Exploratory experience: After selecting tests for research conducted reconnaissance experiment researcher 23/09/2019 on a sample of (3) players from non - sample tests of physiological and biochemical.

Main experience:

Pre -tests :The pre-tests for physiological and biochemical tests were conducted on the research sample on 26/9/2019 in the fencing hall.

Application of the test data **:** were conducted tests and measurements of the variables of the study on the two sets of research after the end of the training program from the period 29/10/2019 until 30/10/2019 and by two days as follows:

1. The first day: variables Mahbooth (physiological and biochemical) players Epee.

2. The second day: the desired changes (physiological and biochemical) for Arab sword players.

The training program followed by the trainer:

- The number of training units (three units, on Sunday, Tuesday, and Thursday).

- The training unit time is 3 hours; the warm-up time is 30 minutes.

- The program was given in a special preparation stage, which includes training modules (high intensity interval training).

Dimensional tests : The dimensional tests were conducted on 11/1/2019 under the same spatial and temporal conditions.

Results and discussion:

- **Display and discuss the results of the arithmetic mean and the standard deviations of the search tests**

Table No. (3) Shows the arithmetic mean, standard deviations, the calculated value of (t), and the degree of (sigIn the physiological variants of the two groups (the Echinacea , the Arab Sword)

Variables	Alone Measurement	Epsych		Arab sword		T	Degree sig	indication
		O-	P	O-	P			D.
Muscle fatigue index	Accurate	19,25	4,08	22,19	4,50	5,03	0,000	D.
Resting pulse rate	N / min	65,2	4,018	7 1 , 98	4,61	3, 90	0,004	D.
Pulse rate after exertion	N / min	139,17	21,73	145,77	22,66	4,08	0,003	D.
Lactic acid measurement	mg	12,47	0,51	12,83	0,88	3,58	0,000	D.

It can be seen from Table 2, which built circles and standard deviations and the value of (t) calculated degree (sig) between the two groups of research (Eric Weapon and Arab Sword) in physiological variables.

Discussion of the results: attribute researcher of moral differences to the training program followed by the trainers who contributed to the restoration of healing and remove fatigue quickly players young weapon blinds and as a result of the adjustment quotient due to their training as the muscle of the most important problems of fatigue faced by athletes in all sports and he was disabled basic in Physical performance and trying to delay fatigue is an effective contribution to improving athletic performance and that there are different types of fatigue associated with training and it is formed during a period of time, so fatigue is a physiological process where (Irrigation Jihad is safety) indicates that the fatigue index has decreased for the youths of the artillery weapon due to the many and multiple physiological effects. where the dilation of blood vessels and in turn leads to the flow of blood arterial and remove the feeling of fatigue , and this was confirmed by (Jihad , 1999) , and with respect to pulse at rest and after the effort, there are differences between the two groups in favor of the players Youth epee blames the researcher of the training epee group Thatar Positive in the healing of the body and that this change helps in bringing about a development in the pulse rate, as the heart rate varies from one person to another as a result of years For including age, sex, weight, body size, type of specialized activity and time of performance and intensity of effort and physical this Mcdh (Mohammed, 1984) "There is a positive correlation between the heart rate within certain limits and the severity of the physical load" , and the results were positive in the measurement of lactic acid in favor of a group epee attributed researcher of the effects of endurance training on the athlete 's body leads to a rise in the adequacy of the level of body organs sports such as the heart and blood circulation and lungs it by increasing the size of the heart will increase the size of the amount of blood paid in the beating of one and then increased susceptibility blood bifurcation in the body to flush out body waste Including lactic acid .

Table (4) Shows circles and standard deviations and the value of (t) calculated degree (SIG) In the biochemical variants of the two groups (the artillery and the Arabian sword)

Variables	Alone Measurement	Epsych		Arab sword		T	Degree sig	indication
		O-	P	O-	P			

Urea	Mg \ dl	44,5	11,6	49,5	10,5	2,8-	0,03	D.
N a	Meq \ L	141,5	3,1	147,5	2,6	14,6	0,00	D.
K	Mg \ dl	4,8	0,09	4,9	0,05	1,5-	0, 04	D.
CL	Mg \ dl	70,5	8,5	75,2	2,9	1,2-	0, 02	D.
Phosphorus	Mg \ dl	3,4	0,22	3,9	0,12	2,8-	0,00	D.

From the table (3) this means the presence of P No. D statistically between the two groups as you see the researcher of the difference (urea) between the two groups in the (Epee, Arab and sword) and for a total of Epee attributes researcher drop Urea This is what confirms (Safa , 1975) However, the excretion of (urea) with urine is a frequently occurring phenomenon, with a marked increase in the amount of lactic acid in the blood, and it is usually accompanied by severe excitement, it is the real reason for excretion of urea in the urine of athletes, in addition to the changes that occur to the composition of blood protein in the properties chemical and Alveziaoah college filters, and all of these changes appear as a result of the effects of the central nervous system as a researcher sees the difference between the two groups (epee, Arab and sword) in the test (Na,K) In favor of a total epee weapon attributed researcher of to the concentration of potassium in the blood plasma is associated with increased exercise intensity and this Macdh (Matveev) "The amount of calcium increases during training that are necessary in the work of a series of enzymes in the muscle" , while the researcher suggests Th to The important function of sodium is to maintain the osmotic pressure of the body fluid, and it must protect the body from losing the fluid in a large amount, and this is what (Raler) "Soym is necessary to transmit signals and instructions in muscle tissue , so by its movement it forms an important role in the balance of fluids and salts , " and that the difference in CL) , Phosphorus) Between the two groups (the Eshish Weapon and the Arab Sword) and for the benefit of the Eshish Corps group, the researcher attributes that the presence of phosphorus in the body in large quantities reduces the absorption of calcium, and the bulk of phosphorus is expelled from the body in the form of acid phosphate through the kidneys, and the rest through fecal matter and sweat. Its deficiency weakens the muscles and weakens the formation of the genetic material, the formation of mucous membranes, and many enzymes, and its concentration in the blood is affected by the function of the parathyroid gland, the action of vitamin D, the absorption process from the intestine, kidney function, bone metabolism and nutrition, this is what is confirmed (Kamal, 2009) .

Conclusions and recommendations:

Conclusions

1- A group of young athletes with elbow guns have preference in tests (muscle fatigue index, measurement of pulse rate at rest and after exertion, measurement of lactic acid) among physiological indicators.

2- A group of young players with the advantage of (CL, Phosphorus, k, Na, Urea) within the biochemical indicators.

Recommendations

1- The need to emphasize training programs or recovery during public and private preparation periods and competitions.

2- The need to emphasize the methods and means of hospitalization after the training modules.

3- Conducting periodic checks of the body's organs and their integrity to ensure that hospitalization takes place in a correct manner.

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