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Summary of the research

The effect of a sports diet program according to a training curriculum on some functional and biochemical indicators for young Romanian wrestlers

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Abstract

The aim of the research is to prepare a sports diet program according to a training curriculum in some functional and biochemical indicators for the individuals in the research sample, as well as to identify the effect of the sports diet program according to a training curriculum in some functional and biochemical indicators for the individuals in the research sample, as well as to identify the effect of the training curriculum without using the sports diet program in Some functional and biochemical indicators for the individuals in the research sample, as the two researchers used the experimental approach with three groups to suit the nature of the research problem, as the research sample was chosen intentionally from the young wrestling players in the Diyala word for the weight category (54, 58, 63) kg, whose number is (18) wrestlers out of (22) wrestlers, they were randomly divided into three groups, two experimental groups and the other control group, and for each group (6) wrestlers, (2) wrestlers per weight, as the first group carried out The sports nutritional program with the training curriculum, while the second group implemented the training curriculum only, and the control group implemented the trainer curriculum, and thus the percentage of the sample (81.818%) of the original community was formed, in addition to using the appropriate means, tools and devices, and the exploratory experiment was conducted, after which a Tribal tests for the three groups, then apply the diet Athlete and the training curriculum, and then conduct a meta-tests of the three groups, and then dump the data were processed and statistically, and then presented and analyzed and discussed, and the researchers reached several conclusions, namely :

1. *The sports diet program with the training curriculum has given a clear effect on some functional and biochemical indicators for the first group members .*
2. *The training curriculum without using the sports diet program also gave a clear effect on some functional and biochemical indicators for the second group .*

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3. *All functional and biochemical indicators achieved a clear effect of the three groups. The first experimental group achieved the preference, then the second experimental group followed, then the control group .*

The researchers reached several recommendations :

1. *Take advantage of the sports diet program prepared by the researchers by wrestling teams .*
2. *Benefiting from the training curriculum prepared by the researchers in the training of wrestling teams, especially the emerging wrestlers .*
3. *Carrying out similar research on different samples and other functional variables .*

Keywords: *sports diet program, biochemical indicators, training curriculum*

I. Introduction :

The modern developed societies always strive to reach the fields of life to the highest levels, especially the sports field through economy in effort and time by using and linking different sciences with the training process, including mathematical physiology and nutrition science and others, for its distinctive role in achieving high athletic achievement since the player is able to reach A high degree of technical and physical performance through functional adaptation, which results in a series of integrated processes for different body systems.

In order to achieve sporting achievements in the wrestling game, it is necessary to resort to increasing training loads and an increase in the difficulty of the training unit through the use of high training intensity, and this is only achieved by providing sufficient energy to perform these high training loads, therefore it is imperative for those in charge of the training process to Increasing knowledge in sports nutrition and the various nutrients the player needs in order to provide the necessary and sufficient energy to perform the training units within the specialized activity in addition to his daily vital operations, therefore a food program must be organized Integrated and balanced for each player, according to his age, weight, and effort represented by the card .

Therefore, the sports diet program must be characterized by an integrated and balanced diet in terms of nutritional diversification by containing meals containing all the nutrients represented by carbohydrates, proteins, fats, vitamins, mineral elements and water, as well as is characterized by nutritional balance through the player’s eating of his meals in quantities that his body needs without An increase or a decrease because his additional nutritional needs differ from one player to another and depend on the intensity of training, the time of training and the type of specialized sport as well as age and gender, and otherwise leads to a decrease in the level of performance and the emergence of a situation Early fatigue during the training or competition process .

The research problem lies through the great effort made by the wrestling player during training or competition and his exposure to a high training load during daily training units in order to raise his physical and skill level as well as the functional adaptation of the body's organs and organs, so his need for energy is

necessary in order to continue the exercises and achieve the desired goal Through the researchers 'observation of the difficulty that the wrestling player faces during daily exercises and the lack of completing exercises during the daily training unit, it is due to a lack of energy needed for such training loads as well as lack of awareness and knowledge of my type The sport of integrated and balanced sports food that may adversely affect the achievement of the goals of the training process, so the researchers decided to study this problem by preparing a sports food program according to a training approach in order to achieve an integrated and balanced food commensurate with the training loads of the wrestlers and raise the job efficiency of the organs and achieve sporting achievements for young Romanian wrestlers ages (16-17) years old .

Areas of research included the human field of young wrestling Roman players in Diyala Governorate for the weight category (54, 58, 63) kg (18) wrestlers, and the temporal field was for the period from 8 / 6 / 2019 to 30 / 9 / 2019 , and the spatial field in the hall of the wrestling training center in Diyala Governorate – Baquba .

II. Research methodology and field procedures :

- Research Methodology :

The researchers used the experimental approach with three groups to fit it into the nature of the problem. The experimental approach "is based on the scientific research methodology based on observation and the development of hypotheses and accurate controlled experience. What distinguishes this method is the high accuracy of controlling variables and controlling them on purpose by the researcher" (Magdy Aziz: 1985: 458), as this approach is the best that can be followed to reach accurate results, as it deals with the influencing phenomenon and its causes, as it is "a process of explaining what is happening with results about a particular case and checking its causes because it deals with the facts" (poul D. Ledy : 1980 : 176) .

- Research Sample :

The researchers chose the sample intentionally from the Roman junior wrestlers in Diyala Governorate Ages (16 – 17) years , weighed (54, 58, 63) kg, and the number is (18) wrestlers out of (22) wrestlers, they were randomly divided into three groups, two experimental groups and one control group, and for each group (6) wrestlers, (2) wrestlers For each weight, as the first group carried out the sports nutritional program with the training curriculum, while the second group implemented the training curriculum only, and the control group implemented the trainer curriculum, and thus the percentage of the sample (81,818%) of the original community was formed. Equal for all members of society to be within the chosen sample " (Qandilji : 1999 : 145) .

- The means, devices and tools used in the research :

- Means of collecting information :

(Arab sources, observation and experiment, tests and measurement, personal interviews, data registration form, the assistant team) .

- Devices and tools used in the research :

(Medical scale to measure weight (kg) and Chinese-made length, electronic stopwatch number (2), Rossmax electronic pulse meter, Japanese-made Lactate.ProTM2 (LT-1730) concentration, medical cotton and aseptic material, catat to determine the lactic acid concentration level, medical syringe (syringe) To draw blood, cooler capsule, anticoagulant-free EDTA tubes, compression belt that connects to the humerus region, clamps to determine the level of enzyme concentration (CPK), clamps to determine the level of the LDH in the blood, centrifuge, bath Aqueous, handy blood serum-absorbent pipette, spectra analyzer + electronic reading device, legal wrestling rug, whistle, may wrestling, wrestling shoes) .

- Determining the research tests:

The researchers selected functional and biochemical tests for the research based on their experience in the field of sports training physiology, namely (measuring the heart rate at rest time and the concentration of lactic acid in the blood, and enzymatic concentration) CPK) and (LDH) in the blood .

- Tests used in the research :

- Pulse oximetry test at rest :

The pulse was measured by (rossmax) This device measures the systolic and diastolic pressure as well as the pulse at rest .

- Purpose of the test : Pulse measurement as an indicator of functional adaptation status .

- Tools : Device (rossmax), armchair .

- Performance description : The device is placed on the left forearm of the wrestler and attached by a belt of his own, the hand of the wrestler is raised at a level close to the heart, then the pulse and the systolic and diastolic pressure are measured by a button in the device that controls zeroing and measurement, and the measurement of the pulse rate was adopted at rest only .

- Test for measuring the concentration of lactic acid in the blood :

(Lactate.ProTM2) is used to Measuring the concentration of lactic acid in the blood before and after the competition effort (two rounds struggle) The time of each round (2) minutes separated by (30) seconds rest, and after (5) minutes from the end of the competition effort (two rounds conflict) the index finger was pricked for each wrestler And taking a drop of the gladiator blood and fixing the percentage of lactic acid concentration in a special form prepared for this purpose (the percentage of lactic acid in mmol) was measured with the help of the medical auxiliary team, as two devices were used to measure the percentage of lactic acid concentration for both wrestlers in order to set the measurement time .

- test Enzymatic Concentration Test (CPK) and (LDH) in the blood :

- Aim of the test: Measure the level of enzymatic concentration (CPK) and LDH in the blood before and after the effort .

- Used equipments : (Medical syringe (blood syringe), cooling container, blood-free tubes (EDTA) anticoagulant, medical cotton, compression belt attached to the humerus region, enzyme concentration (CPK) clamps, enzyme level placement (LDH) in the blood, centrifuge, water bath, handy pipette to pull serum from the blood, device Spectra analysis + electronic reading device) .

Performance method :

First - the first laboratory procedures :

Special test is performed to measure enzymatic concentration (CPK) and (LDH) being the best indicator for measuring the level of creatine phosphate in the blood. The enzyme (LDH) is the best indicator for measuring the rate of amino acid degradation in the blood. This test is carried out in two stages :

- Before the voltage :

Blood is drawn from the members of the research sample before performing any effort (in case of rest) by the auxiliary medical staff, using a medical syringe by (5 cc) The blood is then emptied from the syringe in special tubes and the name of the wrestler is written on it, after which the tubes are collected for all individuals of the research sample and placed in the cooling portfolio .

- After the effort :

After the warm-up process and the wrestlers take the tests, blood is drawn from each wrestler and during the period of (15 - 20) minutes after the completion of the tests, " since the concentration is very high during this period and the blood can also be drawn within a period of (30) minutes " (Jan Koolman, Klaus Heinrich : 2008) , and by the same procedures that blood was drawn before the effort is done After drawing the blood, all the tubes are kept for the research sample in the cooling case after writing each wrestler's name on his tube .

Second - The second laboratory procedures :

After that, the blood samples are transferred to the laboratory by the cooling box directly after the completion of taking the samples (before and after the effort) and their chemist treatment by the specialists in order to find an enzymatic concentration ratio (CPK) and LDH in the blood .

III. Exploratory experience:

The researchers conducted the pilot experiment on Sunday 16 / 6 / 2019 on a sample consisting of (4) wrestlers and they were excluded from the main experiment, to avoid drawing blood twice and the purpose of the exploratory experiment was :

- ❖ Ensure the validity of the devices and tools used.
- ❖ Ensure that the work team is efficient and understandable to carry out measurements and tests .
- ❖ Know the obstacles that appear and avoid errors and overlaps in work .
- ❖ Knowing the time required to perform measurements and tests for each individual .
- ❖ Find out what mistakes are in this experiment to avoid in the final experiment .

- Field Research Procedures :

- Pre-test :

The two researchers conducted the special tribal tests on Thursday 6/20/2019 in the hall of the wrestling training center in Baquba, where the researchers sought to record and install all the conditions related to the tests in terms of time, place, devices, tools and method of implementation in order to create the same conditions when conducting the post-test.

- Sports nutrition program and training curriculum:

The researchers prepared a mathematical nutritional approach based on calculating the calories that the wrestler player needs during the day as basic requirements, adding to them the calories he needs according to the effort exerted in daily training units or competition as additional requirements so that energy liberalization is easy and the benefit of training is to raise the level of physical, skill and planning And thus the achievement was achieved, and this was done by calculating the daily energy requirements according to the following formula (Hussein Al-Ali : 2010 : p. 4) :

Individual daily requirements = basic energy requirements + additional energy requirements

First: the basic requirements for every athlete or non-athlete who needs (1,3) kcal per kilogram of body weight per hour, so the formula is as follows:

Basic requirements = 1.3 calories x 24 hours x body weight

Second : The additional requirements for each athlete need (8,5) kcal per kg of body weight per hour, so the formula is as follows :

Additional requirements = 8.5 calories x training time x player weight .

Third : The daily energy requirements are calculated by adding the basic and additional requirements and then distributing them over the number of meals per day.

A training curriculum was also prepared by the researchers according to the precise scientific foundations, and its purpose was to develop some functional and biochemical indicators, as the training curriculum was implemented within the special preparation period after the opinions and observations of the specialists were taken and finalized for the purpose of its application with the sports food program during the experiment period The researchers took into account the matters related to the training unit according to its divisions, as well as the available devices and tools, and it took taking the curriculum (12) A week, and from Saturday, 22/ 6 / 2019 to Thursday, 11 / 9 / 2019, with an average of (3) training units per week where the days (Saturday, Monday, Wednesday) were training days, and thus the number of training units reached 36) A training unit, and the researchers took into account the ratio of work to rest, in addition to calculating the difficulty of the daily, weekly and monthly training unit in order to reach the main goal of the training process for the individuals in the research sample, knowing the difficulty of the training unit was calculated in the main part only.

Dimensional tests :

Dimensional tests of the research sample were conducted on Saturday 14 / 9 /2019 After completing the implementation of the training curriculum and the sports diet prepared by the researchers, the researchers were keen to provide the same conditions and procedures followed in the tribal tests .

- Statistical means :

The researchers used the statistical means appropriate to the subject of the research and they were in accordance with the statistical bag system (spss) .

IV. Presenting, analyzing and discussing the results

In order to achieve the objectives of the research and its hypotheses, data collection and interpretation of the results, the researchers processed them with statistical tables according to the order of those goals and hypotheses, as "the task of the main results is to respond to the research hypotheses and questions, as this section includes a complete and detailed presentation of the research data because this part is important in The study is where the evidence and proof of the authenticity of the researcher's findings " (Lami : 2007: 46) .

- Display the results of the mathematical media and the analysis of variance analysis (F) for the dimensional tests for functional and biochemical indicators enzyme (CPK – LDH) for the three groups of research, analysis and discussion :

Table (1) Shows the mean values of the mean and the standard deviations of the three research groups in the posttest tests for enzymatic functional and biochemical indicators (CPK - LDH)

Variables		measruing unit		The first experimental group		The second experimental group		Control group	
				Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Resting pulse rate test		Bpm	-s	68.333	62.5	68.833	64.666	68.666	65.833
			P	0.368	0.746	0.636	0.578	0.412	0.613
Lactic acid concentration test		mmol / L	-s	12.294	6.172	11.929	8.873	11.783	9.965
			P	0.571	0.918	0.322	0.551	0.475	0.685
Enzyme Concentration test (CPK)	Before the effort	U \ L	-s	226.821	451.226	217.339	433.112	213.756	418.621
			P	12.451	6.338	8.78	1.148	10.665	4.446
	After the	U \ L	-s	545.834	785.297	532.312	768.514	524.117	755.712

	effort		P	24.671	5.373	12.416	1.685	17.241	3.119
Concentration test Enzyme (LDH)	Before the effort	U \ L	-s	323.971	352.256	317.632	338.119	313.878	327.471
			P	11.334	4.166	8.656	1.334	10.914	2.567
	After the effort	U \ L	-s	358.459	473.668	351.607	458.401	347.075	442.526
			P	13.789	7.667	9.536	2.309	11.172	5.476

The table shows (1) The values of the arithmetic mean and the standard deviations of the three research groups in the pre and post tests of the functional and biochemical indicators enzyme (CPK - LDH). In the heart rate test at rest time, the mean in the pre-test for the three groups, respectively (68.333, 68.833, 68.666) Standard deviation, respectively (0.368, 0.636, 0.412), while the mean mean in the post test for the three groups .respectively (62.5, 64.666, 65.833), and standard deviation respectively (0.746, 0.578, 0.613)

In the lactic acid concentration test, the arithmetic mean was found in the pre-test for the three groups, respectively (12.294, 11.929, 11.783) and standard deviation, respectively (0.571, 0.322, 0.475), while the mean mean in the post test of the three groups respectively (6.172, 8.873, 9.965) and standard deviation, respectively (0.918, 0.551, 0.685).

And in an enzyme concentration test (CPK) before the effort, the mean of the mean in the pre-test for the three groups in a row (226.821, 217.339, 213.756) and with a standard deviation respectively (12.451, 8.78, 10.665), while the mean in the post test for the three groups in a row (451.226) , 433.112, 418.621) and standard deviation, respectively (6.338, 1.148, 4.446) .

As for the enzyme concentration test (After the effort, the mean of the mean in the pre-test for the three groups in a row (545.834, 532.312, 524.117) and with a standard deviation respectively (24.671, 12.416, 17.241), while the mean in the post test for the three groups in a row (785.297) , 768.514, 755.712) and standard deviation, respectively (5.373, 1.685, 3.119) .

And in an enzyme concentration test (LDH) Before the effort, the mean of the mean in the pre-test for the three groups in a row (323.971, 317.632, 313.878) and a standard deviation respectively (11.334, 8.656, 10.914), while the mean in the post test for the three groups in a row (352.256) , 338.119, 327.471) and standard deviation, respectively (4.166, 1.334, 2.567) .

As for the enzyme concentration test (After the effort, the mean of the mean in the pre-test for the three groups in a row (358.459, 351.607, 347.075) and a standard deviation respectively (13.789, 9.536, 11.172), while the mean in the post test for the three groups in a row (473.668) , 458.401, 442.526) and standard deviation, respectively (7.667, 2.309, 5.476) .

schedule (2) Explains the results of the mono-variance analysis (F) test and the significance of the differences between the three research groups in the post-test for enzymatic functional and biochemical indicators (CPK – LDH)

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Variables		Source of contrast	sum Squares	Degrees of freedom	Average squares	Values * Computed f	indication The differences
Resting pulse rate test		between	17.12	2	8.56	6.788	moral
		inside	18.915	15th	1.261		
Lactic acid concentration test		between	19.058	2	9.529	7.29	moral
		inside	19.605	15th	1.307		
Enzyme Concentration Test (CPK)	Before the effort	between	257.544	2	128.772	7.755	moral
		inside	249.045	15th	16.603		
	After the effort	between	226.874	2	113.437	9.308	moral
		inside	182.805	15th	12.187		
Enzyme Concentration Test (LDH)	Before the effort	between	51.836	2	25.918	5.097	moral
		inside	76.26	15th	5.084		
	After the effort	between	165.708	2	82.854	8.496	moral
		inside	146.265	15th	9.751		

Values (F) Tables (3,680) at the level of significance (0.05) and degrees of freedom (2 , **15)** *

The table shows (2) Results of the analysis of variance analysis (F) between the three research groups in the post-test for functional and biochemical indicators enzyme (CPK - LDH). In the pulse rate test at rest time, the calculated value of (F) reached (6,888) which is greater than the value of (F) Tables (3.680) below the significance level (0.05) at two degrees of freedom (2, 15), where the difference was significant .

In the test of lactic acid concentration, the value of (F) calculated and amounting to (7.29) which is greater than the tabular value (F) of (3,680) under the significance level (0.05) at two degrees of freedom (2, 15) where the difference was significant .

As for the enzyme concentration test (CPK) Before the effort, the calculated value of (F) amounted to (7.755), which is greater than the tabular value (F) of (3,680) under the significance level (0.05) at the degrees of freedom (2, 15) where the difference was significant .

And in an enzyme concentration test (CPK) After the effort, the calculated value of (F) amounting to (9.308) was greater than the tabular value (F) of (3,680) below the significance level (0.05) at degrees of freedom (2, 15) where the difference was significant.

As for the enzyme concentration test (LDH) Before the effort, the calculated (F) value of (5.097) was greater than the tabular (F) value of (3,680) under the significance level (0.05) at degrees of freedom (2, 15) where the difference was significant .

And in an enzyme concentration test (After the effort LDH, the calculated value of (F) amounted to (8.496), which is greater than the tabular value (F) of (3,680) under the significance level (0.05) at the degrees of freedom (2, 15) where the difference was significant .

Table (3) Shows the results of (LSD) to know the least significant difference and the significance of the differences between the three research groups in the post test for functional and biochemical indicators enzyme (CPK - LDH)

Variables	Totals	Difference Circles	Values LSD	indication The differences
Pulse rate at rest Test	Group (1) - Group (2)	2.166 *	0.895	moral
	Group (1) -Group (3)	3.333 *		moral
	Group (2) - Group (3)	1.167 *		moral
Lactic acid concentration Test	Group (1) - Group (2)	2.701 *	0.927	moral
	Group (1) - Group (3)	3.793 *		moral
	Group (2) - Group (3)	1.092 *		moral
Enzyme concentration (CPK) before voltage Test	Group (1) - Group (2)	18.114 *	11.788	moral
	Group (1) - Group (3)	32.605 *		moral
	Group (2) - Group (3)	14.491 *		moral

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Enzyme concentration (CPK) after voltage Test	Group (1) - Group (2)	16.783 *	8.652	moral
	Group (1) - Group (3)	29.585 *		moral
	Group (2) - Group (3)	12.802 *		moral
Enzyme concentration (LDH) before voltage Test	Group (1) - Group (2)	14.137 *	3.609	moral
	Group (1) - Group (3)	24.785 *		moral
	Group (2) - Group (3)	10.648 *		moral
Enzyme concentration (LDH) after voltage Test	Group (1) - Group (2)	15.267 *	6.923	moral
	Group (1) - Group (3)	31.142 *		moral
	Group (2) - Group (3)	15.875 *		moral

The table shows (3) The mean of the arithmetic mean between the three research groups, the value of LSD and the significance of the differences for functional and biochemical enzymatic indicators (CPK - LDH). (0.895), the significance was significant and in favor of the first group, but between the first group and the third group, the difference in the arithmetic circles reached (3.333) which is also greater than the value of LSD, so the significance was significant and in favor of the first group, but between the second group and the third group it reached a difference Arithmetic circles (1.167) which is Also greater than the value of LSD, the significance was significant and in favor of the second group.

In the test of lactic acid concentration, the difference between the first and the second is calculated (2.701) It is greater than the value of (LSD) of (0.927), so the significance was significant and in favor of the first group, but between the first group and the third group the difference of the arithmetic circles reached (3.793) which is also greater than the value of LSD, the significance was significant and in favor of the first group, but Between the second group and the third group, the difference in the arithmetic mean reached (1.092) which is also greater than the value of LSD, so the significance was significant and in favor of the second group .

As for the enzyme concentration test (CPK) Before the effort, the difference between the arithmetic mean between the first group and the second group was (18.114) which is greater than the value of LSD of (11.788), and the significance was significant and in favor of the first group, but between the first group and the third group, the arithmetic difference difference reached (32.605) It is also greater than the value of LSD. The significance was significant and in favor of the first group. As for the second group and the third group, the difference in the arithmetic circles reached (14.491) which is also greater than the value of LSD. The significance was significant and in favor of the second group .

And in an enzyme concentration test (After the effort, the difference between the arithmetic mean between the first group and the second group was (16.783) which is greater than the value of LSD of (8.652), and the significance was significant for the first group, but between the first group and the third group, the difference between the arithmetic media was (29.585) It is also greater than the value of LSD, so the significance was significant and in favor of the first group. As for the second group and the third group, the difference of the arithmetic circles reached 12.802, and it is also greater than the value of LSD, so the significance was significant and in favor of the second group .

As for the enzyme concentration test (LDH) Before the effort, the mean of the difference between the arithmetic circles between the first group and the second group (14.137) was greater than the value of LSD of (3.609), and the significance was significant and in favor of the first group, but between the first group and the third group, the difference of the arithmetic media reached (24.785) It is also greater than the value of LSD, so the significance was significant and in favor of the first group. As for the second group and the third group, the difference of the mathematical circles reached (10.648) which is also greater than the value of LSD, so the significance was significant and in favor of the second group .

And in an enzyme concentration test (After the effort, the difference between the arithmetic mean between the first group and the second group was (15.267) which is greater than the LSD value of (6.923), and the significance was significant for the first group, but between the first group and the third group, the mean of the arithmetic difference was (31.142) It is also greater than the value of LSD. The significance was significant and in favor of the first group. As for the second group and the third group, the difference of the mathematical circles reached (15.875), which is also greater than the value of LSD. The significance was significant and in favor of the second group .

- discussion Results of analysis of variance and the lowest significant difference (LSD) among the three research groups in the functional and biochemical enzymatic indicators (CPK – LDH) .

Through tables (1, 2, 3) We find that there are significant differences between the three research groups in all the results of functional and biochemical indicators, as the three groups showed a clear development in the dimensional tests. In the pulse stomach test at rest time, there appeared significant differences between the first group and the second group and the results were For the benefit of the first group, and the first group with the third group and the results were in favor of the first group, the researchers attribute this to the effectiveness of the food program accompanying the training approach implemented by the first experimental group that had a clear impact in providing sufficient energy to perform For training units, which increased the response of the functional devices to the high intensity used during training and increased the state of functional adaptation to them through a decrease in the pulse rate, which is a health condition for the athlete, as he indicates (Abu Al-Ella : 2000 : 248) Slow beat rate phenomenon Heart up (40 n / d) One of the most expressive indicators The increase in the job status For the heart, "the researchers also attribute to the training method implemented by the second experimental group that distinguished from the third group and which was distinguished by its numbers in distributing the training load according to the precise scientific foundations and the organized work in its implementation, which gave a clear development for all the functional and biochemical indicators of the second experimental group, as he mentioned (Al-Hazaa : 1997: 29-30) that "regular physical training leads to a decrease in the heartbeat in rest compared to before training due to physiological adaptation,

because physical training increases the volume of the batch or the amount of blood that the heart pumps in each of the beats, which makes the heart more Sufficient in its work and the heart can meet the demand for blood by different parts of the body with fewer heartbeat .

Likewise, in the lactic acid test, a clear development of the three groups appeared in the dimensional tests, respectively, the first group, then the second, and then the third control group, as it confirms (Fathi Marginalized: 2002: 53) "That level of focus Lactic acid in the blood, which Denotes quantity Anaerobic work is The indicator that shows the level of focus Lactic acid in the muscle, There is a fixed time for accumulation Acid inside the muscle, as the time of his arrival to The blood vessels in two minutes "," during training there is an accumulation of lactic acid in the blood, which has an effect on the athlete's arrival to the state of fatigue, before this acid returns to its level of balance at the time of rest, the body must get rid of it before performing the next effort " (Mohammad Redah : 2009 : 470), citing (Fox et al., 1989) .

And also in an enzymatic concentration test (CPK - LDH), a clear development of the three groups appeared in the dimensional tests, respectively, the first group and then the second, and then the third control group, "the enzyme (CPK) present in the muscles increases in order to produce energy to perform the required muscle effort and an increase in its percentage in the blood is an indication of an improvement in the activity of this enzyme. In the body in general and topically in the working muscles in particular, as the rate of this increase reaches from (2 – 3) times the normal state. Extreme exercise leads to an increase in the percentage of CPK in the blood than its normal level, so its high rate is a natural matter for athletes. (TM Sanders and CM Bloor: 1997: 157) .

After the creatine phosphate stock is depleted, then the body begins to rely on rebuilding ATP on the decomposition of glucose anaerobically with a series of reactions ending in the formation of lactic acid by the action of an enzyme (LDH) as " lactic acid is produced from the decomposition of clicogen and glucose by some enzymes that work to decompose glucose into lactic acid as the end of the process (glycolytic pathway) with the help of enzyme lactogenase (Lactate dehydrogenase), which works to convert pyruvate into Lactic " (Bahaa Al-Din Ibrahim Salama: 1990: 107) .

This explains the increase in enzyme activity (LDH) after physical exertion, and this is consistent with what it says (Bahaa Al-Din Ibrahim Salama 1999: 30) in that " when an individual exerts a physical effort, the excretion of glucose from the liver increases as a result of this effort as the rate of demolition and building of glucose increases (representing the glucose), Experiments that increase the decomposition of glucose from the liver 's claycogen is carried out with the help of a group of enzymes, including the lactite dehydrogenase enzyme, whose activity increases with the training exercises of the individual athlete " .

V. Conclusion

From the above, the following conclusions were reached :

1. The sports diet program with the training curriculum has given a clear effect on some functional and biochemical indicators for the first group members .

2. The training curriculum without using the sports diet program also gave a clear effect on some functional and biochemical indicators for the second group .

3. All functional and biochemical indicators achieved a clear effect of the three groups, The first experimental group achieved the preference, then the second experimental group followed, then the control group .

The researchers reached several recommendations :

1. Take advantage of the sports diet program prepared by the researchers by wrestling teams .

2. Benefiting from the training curriculum prepared by the researchers in the training of wrestling teams, especially the emerging wrestlers .

3. Carrying out similar research on different samples and other functional variables .

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