TRAINING CURRICULUM TO DEVELOP AEROBIC CAPACITY IN VARIABLE MAXIMUM AEROBIC VELOCITY (VMA) AND ADAPTATION OF THE HEART FOR FOOTBALL PLAYERS UNDER THE AGE OF 19

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ABSTRACT

The trainer should work on developing the Philippine heart rate and aerobic speed and using the most effective training method in different stages of life depending on the type of game and the system prevailing in the aerobic and anaerobic work, the researcher used the descriptive method with one group and the pre and post-tests from the players of the Specialized School for Talent Care in Football (Baghdad School) the ages under the of (19 years), Their number was (24) players, their mean age was (18, 777), with a deviation (0.971), and an mean training age (52, 777), and with a deviation (7, 590). The pre-test was conducted, and after 60 days of training in the intensive training method (pressure), the researcher came out with results in measuring the velocity maximum aerobic (VMA) in the pre-test, the mean velocity maximum aerobic was (12, 880) and deviation (1, 478). As for the post test, the mean was (16, 858) and the deviation (1, 300). As for the heart adaptation, the mean was (10.014) in the pre-test mean was (1.573), as for the mean in the dimensional measurement, reached (7.125) and the deviation (1.985). As for the most important conclusions reached by the necessity of working on training the aerodynamic abilities, especially the velocity maximum aerobic and its repetition to develop the physical ability and the necessity of neglecting the adaptation and adaptation of the frying muscle because it is the basis of work.

Keywords: Football, VMA Adaptation of the Heart, Compressor Training.

I. INTRODUCTION

The practice of regulated movement and physical activity according to the scientific foundations lies in maintaining and improving athletic performance and developing the work of the body's organs according to the specificity of the game (Ibrahim et al., 2019). He game of football is one of the most popular games, and it was not by chance that football reached this amazing level that we know, but that was the result of a mixture of science in the physical field to improve the level of performance, and development of the training state of players and focus on preparing them well in terms of physical and skill And the tactical and psychological, under the supervision of trainers and the presence of highly qualified researchers, (Ahmed Bastwissi 2008) refer “the progress of sports levels in the last decade is the result of sound planning based on advanced scientific foundations with the upgrading of training methods, development of tools and equipment and playgrounds, and attention to preparing trainers and qualifying them scientifically and practically. This development has been accompanied by progress in play plans. And his arts in individual and team games ”, That (Alexandre Dellal. Une saison2013) points out “the coaches must choose the appropriate training method and special exercises in the development of the physical numbers that correspond to the movement and form of effort that the player performs during the match on the field, and there is no doubt that the compressive training method: This type of training is of great importance for skill training related to the quality of endurance and speed of performance.
This is for training in which the player performs the skill at maximum strength and speed in a specific time, ranging from half a minute according to the ability of the player, and this strong physical skill performance makes the work aerobic, and the coach is the one who determines the intensity of the load that the player performs according to the following:

1. Change the direction of the exercise constantly.
2. Change the distance between the player and the ball.
3. Change the distance the player travels.

(Ahmed Taha Salim 2020) This decrease in the efficiency of the circulatory system leads to a decrease in the quality of endurance and the ability to continue performing and feeling tired, and this is what the results of the Borg scale (RER) indicated, where they indicated a greater increase in the degree of feeling of effort by a greater percentage after 16 days of interruption from training, because the more the period of interruption from training was long, the greater the degree of feeling of effort and thus the reduction in the ability to perform oxygenated physical activities (endurance of speed), The (overlay panel, Toufik Fantous, Ammar Yahia 2020) said to “the maximum aerobic speed in the introduction of the VMA is one of the most important success factors in endurance activities, as it is considered the maximum capacity of the athlete’s body to transport and consume oxygen, and from this basis the trainer must work to develop these two characteristics using the most effective training method commensurate with the type of specialized activity in order to achieve the investment of the most important physical abilities of the specific type of activity, as it has a direct impact on the high level of physical performance and the VMA aerobic speed” (Ahmad Nasr al-Din 2004) there is "Trainers use multiple types of fitness training that differ according to the type of sport specialized for the player, ranging from aerobic and aerobic load exercises that include cross-load training that combines both types, and those loads are related to the response range that occurs in heart rates in meeting and responding rate responses Heart to load training load, and The pulse rate is defined as the "rate of propagation of stretching waves within one minute from the walls of the aorta when blood rushes into it from the left ventricle to the arterial walls." The heart rate varies during the different stages of life, the type of torso athlete, the prevailing system in the aerobic and aerobic work.

**Purpose:**
To know the effect of the training curriculum using intensive training (compressor) in developing the maximum airflow and cardiac adaptation of football players under the age of 19 years:

**Previous and similar studies:**
- A study (G. P. Millet S. Libicz F. Borrami 2003) the effects of increasing the intensity of intermittent training for runners, the study was on (7 athletes) who were all training at a rate that all were continuously training for at least 15 hours cycling, swimming and running 50 - 60 km per week, for a year, the test is done after every 3 weeks to each of (VO2max, VMA). The VO2max reached 72 ml / kg / minute in each (1 km / hour) after it was 49.48 ml / kg / minute in each (1 km / h) and the time of running in the tests was reduced by 39.4 seconds per (1 km / hour) with the improvement of myocardial adaptation, which recorded 10.34 beats., As for the study (Kallalef Muhammad, Butasta Najib 2018), which aimed to find out the effect of high-intensity interval training on the development of aerobic speed and (VO2 max) for football players aged (18-20) years, the study sample reached (18) players from the Diambars Institute The results indicated an improvement in the maximum airflow velocity (VMA) 13.44 - 14.77 km / h after 4 weeks of training, an improvement in the heart rate and a reduction in the heart rate to 9 beats”. The study included (Abd al-Rahim bin al-Abed 2020), A recent football study was conducted that investigated the mental aspects of thinking among university-level football players (Ibrahim et al., 2020). The effect of the training program used by this continuous and fleet training method, short-term interval training, the mini-games method and its effect on improving the maximum airflow speed (VMA) for ages 19 in the football game, their number was (16), the duration of the program was 30 days, results, maximum airflow speed and repeat speeds in tests from 85.10 to 92.15.
Training curriculum for the stress (intensive) training method: - Duration 8 weeks, intensity 20-30% (less than maximum), repetition (4-6), groups: (2-3 groups), rest between repetitions (120-160 b / sc) (i.e. Failure to recover fully, and between groups (4-6 sc) Duration: 8 weeks Units: 3 units per week, Saturday - Monday - Wednesday, perform and continue the exercise for 20 minutes until the stage of general stress, and the period of work can be increased for 30 minutes, it is possible Performance and running between signs with the ball or without a ball, and the repetition of the distances running and it is greater than the distances of the competition or similar to it with the increase of the repetitions, for example, the player runs a distance of 20 meters between 7 signs between them with a distance of 1.5 meters in the ball and without the repetition ball five times and between each iteration and the last rest 10 15, 20, seconds.

III. METHOD AND TOOLS

VamevalCazorla1993 (Correct test) (Cazorla G, Léger 1993)
A track divided into 20 meters by cones and the speed increases at every 20 meters by 0.5 km / h via a CD to alert the increase in speed to the point of fatigue and the extraction of air speed through the nomogram Lacker-Borker.

dickson-rufferindex (Jan Seghers, et.at 2018).

It is an indicator of cardiac resistance to stress, which was developed later by Dr. Dickson and became known as the Reve-Dixon test. An exometer was used to measure heart rhythms.

\[
\text{ruffer Index} = \frac{(\text{HR0} + \text{HR1} + \text{HR2} - 200)}{10}
\]

1. The HR0 from the first sitting position, during the maximum relax.
2. The HR1 after the Training.
3. The HR2 during the second sitting part, after 1 minute calm dow.

Table 2. The Values of the Pre and Poste Test the Arithmetic Means, The Standard Deviation (T) Value, and the Mean Difference

<table>
<thead>
<tr>
<th>Variables</th>
<th>SIG</th>
<th>T</th>
<th>F</th>
<th>Post test Mean</th>
<th>The pretest Mean</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptation of the heart</td>
<td>0.000</td>
<td>6.539</td>
<td>-2.91</td>
<td>1.985</td>
<td>7.125</td>
<td>10.014</td>
</tr>
<tr>
<td>VMA</td>
<td>0.000</td>
<td>10.174</td>
<td>3.978</td>
<td>1.300</td>
<td>16.858</td>
<td>12.880</td>
</tr>
</tbody>
</table>
IV. DISCUSSION

Intensive training (compressor) is to increase the training loads and raise the intensity of training at a high degree for a short period, which leads to achieving sports form as soon as possible throughout the training season.

Table (2) shows the statistical results. The mean calculation for the maximum airspeed for the pre-test reached (12,880), while the post-test was 16,858 and the adaptation of the heart was the arithmetic mean of the pre-test was (10.014) and the post-test reached (7.125), meaning there is a clear improvement in the level of The two variables, The development of the players occurred through increasing the velocity maximum aerobic and the adaptation of the heart through the Dickson-ruffler index mammogram. We find that the value was within the (moderate value) for the adaptation of the heart, which ranges from (9-12). Level (endurance rate) that reached (6-9).

Intensive training (compressor) is to increase the training loads and raise the intensity of training at a high degree for a short period, which leads to achieving sports form as soon as possible throughout the training season.(MwafakAsaad Mahmoud 2009) explain That "exercises in developing the highest velocity maximum aerobic have a great ability to influence the development of aerobic speed, and these proposed exercises on physical effort similar to what the player does during the match, and that the result of short intermittent exercises remains more effective in developing aerobic abilities" and (Muhammad Reda Ibrahim2008)said to ( that the development of velocity maximum aerobic is more effective when strength and speed are the basis for physical preparation. It improves the maximum airspeed and reduces the resting pulse and effort. Through the intensity that was used for the development and adaptation of the heart, and through the repetition of the pacing and rest periods there was an evolution in the adaptation of the heart muscle.(Ghazi Saleh Mahmoud 2013) Confirmed "The important indicators through which we can recognize the severity of the burden placed on the body during physical exertion and heartbeat is directly proportional to the exerted effort". (Flexck-S J 2002) that cardiac fitness means “the ability of the heart, blood vessels, blood and respiratory system to supply energy materials,
especially oxygen to the muscles. And the ability of muscles and the use of energy materials in the performance of endurance training ".and this confirms that it has been developed through aerobic exercises (endurance) designed to develop aerobic velocity and cardiac arrest which There has been a change in the two abilities as a result of systematic training and the complete division between the vocabulary of pregnancy Training between size, repetition, and intensity, it is necessary to develop and develop the endurance trait from the early years of training for juniors in team games such as football, basketball, volleyball, country football, so that we work on The development of physical and motor performance for the longest possible period while reducing fatigue and heart work at the maximum economic level.

V. CONCLUSIONS

• By the necessity to work on training the airways, especially the maximum airspeed and its repetition to develop the physical ability and the necessity of neglecting the adaptation and adaptation of the frying muscle because it is the basis of the work.

• A reliable compressive training method to improve the velocity maximum aerobic of soccer players.

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