



***Effect of Tactical Training in Fast Play Style on ANP-BNP  
Concentration Level and Some Biomotor Abilities of U-17 Football  
Players***

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**ABSTRACT**

**Keywords:**

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Football has recently witnessed a great development in the field of training and proper training planning and interest in the various aspects of training that affect the sports achievement urged made the possibility of creators predict the future through modern methods and messages, and from this point of view the researcher prepared tactical exercises in the style of fast play according to codified exercises related to tactical extremism, which helps members of the research sample to reach the upper levels of field application, hence the importance of research using the researcher tactical exercises Rapid play style at the level of hormonal BNP-ANP and some biokinetic abilities of young football players and the aim of the research to prepare tactical exercises in a rapid manner at the level of hormonal BNP-ANP and some biokinetic abilities of young football players and to know the impact of these exercises and to achieve the objectives of the research the researcher assumed that there is an effect of tactical exercises in the style of fast play in the level of hormonal BNP-ANP and some biokinetic abilities for football players under 17 years

The researcher used the experimental approach in the style of the two groups equivalent to the pre- and post-test to suit the variables of the research, and the study research community included the junior football players of the clubs of the holy province of Karbala for the sports season 2024/2025, and their number is (10) clubs by (220) players, and the research sample was selected in a random way (lottery), and the players of Al-Ghadhriya Sports Club, numbering (20) players, were chosen, where the researcher divided the sample into two equivalent groups, an experimental group and a control group by (10) players for each group, the exercises continued for a period (8) weeks and by (3) training units per week.

## 1 - Definition of research

### 1 – 1 Introduction to the research and its importance

Athletes are reached to higher levels through optimal sports training in various competitions and championships, and athletes are reached to higher levels through integrated training and thoughtful effort in terms of physical, skill, planning, psychological and other abilities. Where these aspects directly affect the access to optimal levels in the competition. Football has recently witnessed a great development in the field of training and proper training planning and attention in the various aspects of training that affect sports achievement, as it made the possibility of coaches predict the future through modern methods and means that affect the sports achievement.

From this point of view, there must be different, diverse and codified training programs or curricula based on scientific foundations and must be consistent with modern methods and means in covering all aspects of training, as the tactical aspect is one of the main and basic aspects of football, where whenever the athlete has the tactical aspects, he is deficient because he does not have the physical aspects, as the physical aspect is necessary to achieve any tactical requirement to achieve excellence and achievement.

Where reflection and tactical behavior in football is one of the high physical, skill and tactical abilities, as it is applied at the high level of psychological and mental preparation, and the bearing of the tactical performance shows the movements of the players with and without the ball, to show the team's individual and collective capabilities in playing situations, whether offensive or defensive during the match period.

Where the player is at a high level of readiness of physical, psychological, cognitive and physiological preparation, the more willing to meet the requirements of the game and more able to understand and implement them. From the foregoing, the interest in tactical exercises in the style of rapid play, which is closely related to the physical, psychological, skill, cognitive and physiological aspect, where its exercises help to raise the level of players individually and collectively, as well as tactical exercises in the style of fast play in improving the concentration ratios of the hormone BNP-ANP. This is effectively reflected in the work of the heart, which in turn greatly helps to improve the player's physical level, which reflects positively on his performance skills on the field.

Hence the importance of research using exercises in the style of fast play in the level of hormonal BNP-ANP and some biomotor abilities for football players under 17 years and to know the impact of these exercises in all respects.

### 1 – 2 Research problem:

The football player must have the ability to withstand all the conditions he is exposed to during the matches in order to be able to continue with high efficiency

without falling in the level throughout the period of the matches, and through the experience of the field researcher being a former player and for several consecutive seasons he was familiar with the field training of young players And their levels, as well as after reviewing a lot of scientific sources and consulting the supervisors, the researcher noted that most of the coaches who train the youth category focus on physical exercise, as well as focus on the psychological factors that help to excite the player and his enthusiasm during the competition and turn a blind eye to the physiological aspects that have a direct impact on the level of players in general, so the researcher decided to prepare tactical exercises in a fast play style at the level of the hormone ANP-BNP and some biomotor capabilities For under-17 footballers.

1 – 3 Research Objectives:

- 1- Preparing tactical exercises in a quick play style at the level of concentration of the hormone ANP-BNP and some biomotor abilities for football players under 17 years.
- 2- Identify the effect of tactical exercises in the style of fast play on the level of concentration of the hormone ANP-BNP and some biomotor abilities of football players under 17 years.
- 3- Identify the preference of influence between the control and experimental groups.

1 – 4 Research Hypotheses:

- 1- There is an effect of tactical exercises in a fast-play style on the level of ANP-BNP concentration and some biomotor abilities of under-17 footballers.
- 2- There are statistically significant differences, the good and the experimental group in the post-tests.

1.5 Research Areas:

1.5.1 Human Domain:

Al-Ghadriya Sports Football Club players junior category for the sports season (2024 - 2025)

1 – 5 – 2 Temporal Domain:

15/10/2024      10/2/2025

1 – 5 – 3 Spatial Domain:

Al Ghadhriya Sports Club Stadium

1.6 Definition of terms:

1 – ANP hormone : atrial peptide diuretic sodium, a protein secreted by cells located in the heart discovered this hormone researcher Argentine Canadian Adolfo de Bold and works as a strong vasodilator is responsible for the homeostasis of the body's water, sodium and potassium and drawing secreted by muscle cells located

in the ears in the heart in response to high blood pressure and reduces this hormone water, sodium and lipids in blood vessels so it lowers blood pressure <sup>(1)</sup>

## 2- BNP : Cerebral sodium diuretic peptide

It is a peptide consisting of 32 amino acids first discovered in 1988 after isolation from the brain, but it was discovered shortly after that that it originates mainly from the heart, which made it classified as a heart hormone, as this hormone is secreted by muscle cells in the ventricles in the heart. <sup>(2)</sup>

## 2- Research methodology and field procedures

### 2.1 Research Methodology

The researcher will use the experimental method in the method of two equivalent groups in the pre- and post-test "because the experimental research includes an attempt to adjust all the basic factors affecting the change of dependent variables in the experiment except for one factor controlled by the researcher and changed in a certain way and intended to determine and measure its impact on the variable or dependent variables".<sup>3</sup>

Table (1)  
Shows the experimental design used in the research

| Post-tests                                    | Demo Handling   | Pre-tests                                       | The Collection        |
|---|---|---|-----------------------|
| BNP-ANP level tests<br>+ Some motor abilities | Tactical exercises<br>in the style of<br>quick play +<br>curriculum<br>prepared by the<br>coach | BNP-ANP level choices<br>+ some motor abilities | Experimental<br>Group |
| BNP-ANP level tests +<br>some motor abilities | Curriculum<br>prepared by the<br>trainer  | BNP-ANP level tests +<br>some motor abilities   | Control group         |

### 2.2 Research community and sample:

The research community included the emerging football players of the clubs of Karbala province for the sports season 2024-2025 (10 clubs) by (220) players officially registered within the lists of the Football Sub-Federation in the province, and the researcher selected the research sample in a random way (lottery) and the players of Al-Ghadriyah Sports Club, numbering (20) players, were chosen after excluding the goalkeepers, numbering (3) and one injured player, where the researcher divided the sample into two experimental and control groups by (10) players for each group.

#### 2.2.1 Homogeneity:

<sup>(1a)</sup> A. De. Bold a trial matriurestic factor a hormone produced by the heart science 1985 : 230 ( 4727) : 767-770  
H<sup>2</sup>. yasue , M yoshimura , H. sumida , K. kata , K.kugigiyama , M. jougasak, 90 (1994) 195-203.

<sup>3</sup> Wajih Mahjoub: Methods and Methods of Scientific Research, 11th Edition, Baghdad, and Wisdom Printing, 1992, p. 327.

The researcher identified the measurements that affect the variables of the research studied, which are height, weight and training age because of their relationship to the variables of the research under study, and homogeneity will be conducted between the sample members in these measurements using the law of certainty.

Table (2)

Shows the homogeneity of the study research sample

| Indication Type | Moral level | Levine value for mean | Degrees of freedom within groups | Degrees of freedom between groups | Unit of measurement | Variable     |
|-----------------|-------------|-----------------------|----------------------------------|-----------------------------------|---------------------|--------------|
| Immoral         | .936        | .007                  | 18                               | 1                                 | poison              | Length       |
| Immoral         | .947        | 1.059                 | 18                               | 1                                 | kg                  | Mass         |
| Immoral         | .639        | .227                  | 18                               | 1                                 | year                | Training age |

## 2-3 Means, devices and tools used in research:

The researcher used the following means, devices and tools:

- Observation
- Testing & Measurement
- Personal Interview
- Electronic breaker type stopwatch (3)
- A Japanese-made woolen camera with a speed of (150) images.
- Dill computer made in Korea.
- Medical scale.
- Cotton strip measuring (10) m long.
- Signs and funnels of different sizes (20) plastic.
- Legal football arena.
- Whistle number (3)
- Casio scientific calculator (Chinese-made)
- 20 legal footballs

## 2.4 Field research procedures:

### 2.4.1 Identification of research variables:

Through the researcher's review of many scientific sources a lot of theses and theses that dealt with the variables of the research and through the experience of the field and his practice of the game as a player in many clubs in Karbala province and his interview with many experts and specialists in the field of training, the research tests have been identified, which are the hormone ANP-BNP and some biokinetic capabilities (transitional speed, agility, strength characteristic of speed).

#### 2.4.1.1 Measurement of the level of hormones and peptides:

Measurement of the level of hormones (oxygen A, atrial peptide sodium ANP in blood serum).

Hormones (oxygen A orexi, atrial peptide sodium ANP in blood serum were measured by blood serum by immunosorbent assay elisa enzyme linked).

Using the ELISA READER device (washer elx 50-bio-tels) of American origin and using the atrial peptide measurement kit (ANP) manufactured by the Chinese company ELABSCIENCE, and the special kit (LIST) measuring the hormone adysin in blood and manufactured by the American company BIOMATIC, and the special kit (LIST) measuring the hormone oxygen A, manufactured by the company RAY BIOTECH, WHICH WORKS ACCORDING TO THE PRINCIPLE OF COMPETITIVE ENZYME IMMUNASSAY, WHERE THE RESEARCHER ADOPTED THE PERFORMANCE TOLERANCE TEST IN ORDER FOR THE RESEARCHER TO ADJUST THE HORMONAL MEASUREMENT (BNP-ANP) IN THE PRE-TEST AND POST-TEST.

#### 3.4.1.2 Characterization of biokinetic aptitude tests:

##### 1- 20m sprint test and starting from 30m

- Purpose of the test:
  - Measure maximum transition speed.
- Instruments: stopwatch, three parallel lines drawn on the ground the distance between the first and second lines (10) m and the second and third lines (20) m, chalk.
- How to perform: The laboratory stands behind the first line, when hearing the start signal, it runs until it crosses the third line, provided that the laboratory time is calculated from the second line until it reaches the third line (20) m

##### 2- Barrow Slalom Running Test

- Purpose of the test: Agility measurement
- Tools:

Draw a rectangle on the ground length (4.75) m and width (3) m fixes four lists on the ground in the four corners of the rectangle, and installs the fifth pillar in the middle of the rectangle with a note that the length of the post must not be less than (30) cm, stopwatch.

Planning the test area.

- Performance and measurement method:

- 1- The tester stands behind the starting line in standby mode to start running from a standing position (high starting position).
- 2- At the signal, the laboratory runs between the five lists until it completes the third cycle.
- 3- Calculates the time it takes to the nearest 1/100th of a second
- 3- Test three partridges for the largest distance of each man separately:
  - Purpose of the test: Measurement of the strength characteristic of the speed of the muscles of the legs
  - Tools: tape measure, playground with limits (20-25) meters.
  - Performance and measurement method:

The laboratory stands on the starting line, which is based on the right foot, performing the three partridges with the right foot, followed by three partridges with the left foot and for the largest possible distance using straight lines drawn on the ground, while adhering to these lines and not departing from them during the partridge and not touching any part of the body other than the partridge foot to the ground, the distance is measured for the largest distance traveled by the right leg, followed by the left leg, and the recording is done by collecting what the laboratory has traveled with the right and left leg to the nearest 10 cm

#### 2.4.3 Exploratory experiment:

Experimental research requires conducting exploratory experiments to identify obstacles and to ensure the scientific conditions and specifications of the tests, as well as to ensure the validity of the tests and exercises that will be applied in the research.

#### 2.4.5 Pre-tests:

The researcher conducted the pre-tests on Friday, 18/10/2024 on the experimental and control groups at nine o'clock in the morning at the Al-Ghadriya Sports Club Stadium in Karbala Governorate, where the hormone level was measured B-NP-ANP For the sample before performing the test and after performing the test on the sample of (20) players divided into (10) experimental players and (10) control, as well as tests of biokinetic abilities under study.

##### 2.4.5.1 Equivalence:

In order to control the research variables that affect the experiment and to start from one point of initiation for the two research groups, the researcher deliberately found equivalence between the two groups in the dependent variables in the research, which are (hormone BNP-ANP) and some biokinetic capabilities under study as shown in the table:

Table (3)

Shows the equivalence of the experimental and control groups in BNP-ANP level tests.

| Indication Type | Morale level | T value Calculated | on      | Going to | The Collection | Variables                  |
|-----------------|--------------|--------------------|---------|----------|----------------|----------------------------|
| Immoral         | 0.171        | 1.426              | .05395  | .9300    | Experimental   | BNP before voltage         |
|                 |              |                    | .01269  | .9050    | Adjuster       |                            |
| Immoral         | 0.116        | 1.649              | 4.22164 | 44.4000  | Experimental   | ANP Pre-voltage            |
|                 |              |                    | 4.96655 | 41.0000  | Adjuster       |                            |
| Immoral         | 0.082        | 1.843              | .04055  | 1.3500   | Experimental   | BNP after voltage          |
|                 |              |                    | .04195  | 1.3160   | Adjuster       |                            |
| Immoral         | 0.276        | 1.123              | 6.19049 | 142.1000 | Experimental   | ANP after voltage          |
|                 |              |                    | 6.92499 | 138.8000 | Adjuster       |                            |
| Immoral         | 0.862        | -0.568             | 0.154   | 3.41     | Experimental   | Transition speed           |
|                 |              |                    | 0.214   | 3.46     | Adjuster       |                            |
| Immoral         | 0.563        | 0.895              | 2.387   | 26.55    | Experimental   | Agility                    |
|                 |              |                    | 2.854   | 25.44    | Adjuster       |                            |
| Immoral         | 0.743        | -0.979             | 1.798   | 8.195    | Experimental   | Speed characteristic force |
|                 |              |                    | 1.574   | 8.975    | Adjuster       |                            |

Table (3) shows in the tests of the level of BNP-ANP hormone and some motor abilities, that the statistical significance indicates that the conditions are not significant, which indicates the equivalence of the two research groups.

#### 2.4.6 Main experience:

After completing the implementation of the pre-tests, the researcher prepared tactical exercises in a quick play style at the beginning of the main section of the training unit and within the specifications required for the purpose of improving the secretion of hormone level ANP-BNP And some biomotor abilities in proportion to the game of football, where the experimental group applied the exercises that were prepared to improve the level of the hormone ANP-BNP And some biomotor abilities, then start applying stomach exercises on Saturday, 19/10/2024, and the training units ended on Wednesday, 18/12/2024, and the exercises included (24) training units using tactical exercises in a style, and the implementation of the exercises took (8) weeks, and by (3) training units per week, each training unit on (4) exercises.

The researcher took into account the following when applying the exercises the duration of the implementation of the exercises (8) weeks were within the periods of special preparation.

One training unit (4) included research exercises that included all tactical situations and modern play methods, as it included play exercises and complex exercises that aimed to develop the variables under study.

- The implementation of the training curriculum lasted for a period of (8) weeks, i.e. each group (24) training units.
- The training days were (Saturday - Monday - Wednesday).
- The training time for one training unit ranges from (40-50) minutes from the beginning of the main part of the training unit.
- The researcher used part of the main section of the training unit to carry out the exercises he prepared.
- The researcher used the method of high-intensity interval training.
- The intensity used in the workouts (80%-90%) ranged from the maximum tolerance of the player.
- The researcher relied on the pulse and the number of heartbeats to determine the rest period between repetitions or even groups using the device (Pull H7) to determine the pulse.
- The researcher strongly took into account the principle of diversity in training and exercises, which were used and all exercises with balls to raise the morale of the player and ensure that he does not feel bored by repeating or repeating some exercises, as well as by diversifying the places and method of carrying in the exercise.
- The implementation of the exercises ended on Wednesday, 18/12/2024

#### 2.4.7 Post-test:

The researcher conducted the post-tests on the research sample after completing the vocabulary of the exercises on Saturday, 12/21/2024, taking into account the provision of the same conditions and conditions that were in the pre-tests as much as possible, and in the same sequence in which the pre-test was conducted, and the results were recorded in special forms that were prepared in advance according to the conditions and specifications specified for each test.

#### 2.5 Statistical methods

The researcher used the statistical bag (SPSS).

#### 3 – Presentation, analysis and discussion of results:

This section includes the presentation, analysis and discussion of the results, where the researcher reached through conducting pre-tests on the research sample, implementing exercises in the training program and conducting post-tests for the research sample, and the data was collected, organized and classified in illustrative tables and then processed statistically to reach the final results to achieve the objectives and hypotheses of the research.

3 – 1 Presentation and analysis of test results for BNP – ANP variables and some biokinetic abilities of the experimental and control research groups and discuss them.

3 - 1 - 1 Presentation and analysis of the results of pre- and post-tests for BNP - ANP variables and some biokinetic abilities of the experimental and control research groups and discussed.

3 - 1 - 1 - 1 Presentation and analysis of the results of pre- and post-tests for BNP - ANP variables and some biokinetic capabilities of the control research group and discuss them.

Table (4)  
The pre- and post-test of the control group shows

| Indication Type | Morale level | T value Calculated | p f     | P       | Post-Test |          | Pre-test |          | Variable           |
|-----------------|--------------|--------------------|---------|---------|-----------|----------|----------|----------|--------------------|
|                 |              |                    |         |         | on        | Going to | on       | Going to |                    |
| Moral           | .001         | -4.975             | .01588  | -.07900 | .04719    | .9840    | .01269   | .9050    | BNP before v       |
| Moral           | .002         | -4.349             | 2.41408 | -10.500 | 5.98609   | 51.5000  | 4.96655  | 41.0000  | ANP Pre-vo         |
| Moral           | .000         | -6.786             | .04672  | -.31700 | .16925    | 1.6330   | .04195   | 1.3160   | BNP after vo       |
| Moral           | .000         | -8.616             | 2.11240 | -18.200 | 4.44722   | 157.0000 | 6.92499  | 138.8000 | ANP after vo       |
| Moral           | 3.46         | 3.804878           | 0.041   | 0.156   | 0.0964    | 3.304    | 0.214    | 3.46     | Transition s       |
| Moral           | 25.44        | 3.285714           | 0.21    | 0.69    | 1.905     | 24.75    | 2.854    | 25.44    | Agility            |
| Moral           | 8.975        | -3.39024           | 0.205   | -0.695  | 0.93      | 9.67     | 1.574    | 8.975    | Speed charac force |

Table (4) shows the statistical indicators of the results of the pre- and post-tests of the control group, for the variables of BNP - ANP, which was subjected to the members of the research sample, as the results showed that the values of the arithmetic mean were greater in the post-test than the pre-test of the control group and there was a significant change between the two tests and in favor of the post-

test of the control group, since these variables are a direct value, where the greater the value of the arithmetic media, the better the level because the hormonal BNP - ANP It deals with the level of concentration in the body where the higher the level of concentration in the body, the better the coin.

These hormones play an important homogeneous role in hemodynamics through their action on kidney function, and in recent times, it has been shown that these peptides have other functions besides those related to the mechanism of promotion of increased pre-impetus and thus increased tribal output."4This shows the extent of the impact of the use of the fast play method, which introduced the educational curriculum for exercises among the members of the research sample in the development of biokinetic capabilities in football in order to contain the method on the correct organization and gradation from easy to difficult and scientific planning as training in football is characterized by planning, organization and continuity and on scientific bases to ensure the extent of the positive impact on the level of the player and his continuation as an introduction to the various aspects of football as a principle of gradation in the high level of load and the correct timing for its repetition

Where the researcher used the statistical t-law for independent samples if they are less than the level of significance (0.05), which indicates that there are significant differences between the pre- and post-tests of the control group and in favor of the post-test.

The researcher attributes this development to the players of the control group to an improvement in the performance of the players in the post-test than it is in the pre-test of the same group "and that the adaptation process is the product of the correct exchange between pregnancy and rest and looking at it as a unit when giving a load during the daily training unit, this load with repetition affects the body systems and reaches the fatigue affecting, and this is the moment when the body begins the process of adaptation, which is completed during the rest period (recovery).

As the reason for this development is due to the exercises used by the trainer in the training units on the control group, and therefore there were significant differences in favor of the post-test of the control group and for both variables BNP - ANP and some motor abilities.

3 - 1 - 1 - 2 Presentation and analysis of the results of pre- and post-tests for BNP ANP variables and some biokinetic capabilities of the experimental research group and discuss them.

Table (5) shows the pre- and post-experimental group

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<sup>4</sup> - Fenzl M, sehnizer w, aebli n, schlegel c, villiger b, disch a, etal releae of ANP and fat dxidation in overweight persons during aerobic exercise in water. Lnt & sports med . (2013) : 34 (9) 795 – 9.

| Indication Type | Morale level | T value Calculated | p f     | P        | Post-Test |          | Pre-test |          | Variab               |
|-----------------|--------------|--------------------|---------|----------|-----------|----------|----------|----------|----------------------|
|                 |              |                    |         |          | on        | Going to | on       | Going to |                      |
| Moral           | .000         | 8.301-             | .02265  | -.18800- | .07099    | 1.1180   | .05395   | .9300    | BNP before           |
| Moral           | .000         | 9.953-             | 1.90904 | -19.00-  | 5.91044   | 63.4000  | 4.22164  | 44.4000  | ANP Pre-v            |
| Moral           | .000         | -44.439            | .02068  | -.91900  | .07810    | 2.2690   | .04055   | 1.3500   | BNP after            |
| Moral           | .000         | -14.332            | 1.65362 | -23.700  | 6.21468   | 165.8000 | 6.19049  | 142.1000 | ANP after            |
| Moral           | 0.000        | 7.7142             | 0.035   | 0.27     | 0.078     | 3.14     | 0.154    | 3.41     | Transition           |
| Moral           | 0.000        | 6.709              | 0.629   | 4.22     | 1.432     | 22.33    | 2.387    | 26.55    | Agilit               |
| Moral           | 0.000        | -5.503             | 0.506   | -2.785   | 0.75      | 10.98    | 1.798    | 8.195    | Speed chara<br>force |

Table (5) shows the statistical indicators of the results of the pre- and post-tests of the experimental group, for the BNP - ANP variable, which was subjected to the members of the research sample, as the results showed that the values of the arithmetic mean are greater in the post-test than the pre-test of the experimental group and there was a significant change between the two tests and in favor of the post-test of the experimental group, since these variables are a direct value, where the greater the value of the arithmetic media, the more significant and the better the level, because the hormonal BNP – ANP It deals with the level of concentration in the body, where the higher the level of concentration in the body, the better, as well as biomotor abilities, a significant development appeared in post-tests.

"BNP-ANP is secreted from the predominant muscle cells in the circulatory system in response to the dilation of the heart muscle, then the circulating peptides occur on a decrease in vascular tone, an increase in the immediacy of electrolytes and the excretion of water by the kidneys, and act on the readiness of the angiotensin-aldosterin resonance system" (5).

Where the researcher used the statistical t-law for independent samples less than the significance level (0.05), which indicates that there are significant differences between the pre- and post-tests of the experimental group and in favor of the post-test.

The researchers attribute the reason for this development in the post-test of the experimental group for both variables BNP - ANP as a result of the exercises prepared by the researcher, which are tactical exercises in the style of fast play, as their impact reflected positively on the players, as these exercises helped to increase stability and to understand and absorb the vocabulary of the applied training plan, and the aim of these exercises is to endure performance to increase the effectiveness of mental abilities as well as to raise the level of hormones BNP - ANP And biomotor abilities, and that tactical exercises in the style of quick play prepared by

<sup>5</sup> - T. sadoh, N. minamino, k. kangawa, h. hatsuo, c- type natriuretic identified in porcine brain, biochem, biphys. Res commun. 168 (1990) 863 – 870.

the researcher aimed at the development of the level of hormone BNP - ANP and biomotor abilities.

These exercises also helped tactical in the style of fast play to increase the levels of the hormones BNP - ANP and the development of biomotor capabilities, and the reason for this is that the tactical exercises in the style of fast play strengthen the heart muscle and thus increase the cardiac output, i.e. the force of blood and the amount of push in the body.

After performing any physical effort, the heart muscle secretes ANP hormones in the atria and BNP in the ventricles "act as a powerful vasodilator and are responsible for the home's water stability, sodium, potassium and fat, and these hormones are secreted in response to high blood pressure, as these hormones reduce water, sodium and lipids in blood vessels, so it lowers blood pressure" (6).

3 - 1 - 2 Presentation and analysis of the results of post-tests for BNP - ANP variables and biokinetic capabilities of the experimental and control research groups and discussed.

Table (6) shows the post-test for the experimental and control groups

| Indication Type | Morale level | T value Calculated | on      | Going to | The Collection | Variables          |
|-----------------|--------------|--------------------|---------|----------|----------------|--------------------|
| Moral           | 0.000        | 4.971              | .07099  | 1.1180   | Experimental   | BNP before voltage |
|                 |              |                    | .04719  | .9840    | Adjuster       |                    |
| Moral           | 0.000        | 4.473              | 5.91044 | 63.4000  | Experimental   | ANP Pre-voltage    |
|                 |              |                    | 5.98609 | 51.5000  | Adjuster       |                    |
| Moral           | 0.000        | 10.790             | .07810  | 2.2690   | Experimental   | BNP after voltage  |
|                 |              |                    | .16925  | 1.6330   | Adjuster       |                    |
| Moral           | 0.002        | 3.641              | 6.21468 | 165.8000 | Experimental   | ANP after voltage  |
|                 |              |                    | 4.44722 | 157.0000 | Adjuster       |                    |
| Moral           | 0.001        | -3.967             | 0.078   | 3.14     | Experimental   | Transition speed   |
|                 |              |                    | 0.0964  | 3.304    | Adjuster       |                    |
| Moral           | 0.005        | -3.046             | 1.432   | 22.33    | Experimental   | Agility            |
|                 |              |                    | 1.905   | 24.75    | Adjuster       |                    |
| Moral           | 0.003        | 3.289              | 0.75    | 10.98    | Experimental   | Navel Strength     |
|                 |              |                    | 0.93    | 9.67     | Adjuster       |                    |

Table (6) shows the statistical indicators of the results of the post-tests of the experimental and control research groups, for the variables of BNP - ANP, which was subjected to the members of the research sample, where the researcher measured the level of hormonal BNP - ANP before the effort and after the effort for both experimental and control groups, as the results showed that the values of the arithmetic media were greater in the post-test of the experimental group than the post-test of the control group, and there were significant changes between the two tests and in favor of the post-test of the experimental group, being These

(<sup>6</sup>) A. de. Bold. A trial natriuretic factor: a. hormone produced by the heart. Science. 1985: 230 (4727): 767 – 770.

variables are directly valued, where the greater the value of the arithmetic media, the better the level because the hormones BNP – ANP deals with the level of concentration in the body, where the higher the level of concentration in the body, the better and the value of the arithmetic media increases. When increasing the concentration of hormonal BNP – ANP plays a major role in regulating blood pressure and fluid volume after secretion from the heart and affects BNP – ANP Immediately on electrolyte and excretion of water in the kidneys and further affects blood pressure by acting on vascular smooth muscle cells and chronically by affecting the permeability of blood vessels as well as increasing the level of hormones BNP – ANP acts on the heart itself to suppress cardiac hypertrophy and fibrosis" (7).

Whereas, the researcher concluded according to the results obtained

"First, release the right atrium more BNP-ANP during all types of exercises.

Second, the resistance exercise freed up the most BNP-ANP in each of the atria.

Third, in the right atrium aerobic and combined exercises released more small and medium ANP granules while exercise resistance released larger BNP granules .

Fourth, in the left atrium aerobic exercise released more intermediate ANP scores, while resistance and joint exercises released larger ANP and BNP granules " (8).

The use of exercises in the style of fast play in the training units leads to the activation of the nervous and physical system, and it also plays an influential role in the development of the psychological aspects to convey the conduct of the lesson happily and joyfully, which leads to motivation and tendency towards exercise.

As the development and improvement of performance depends mainly on the repetition of the skill and the number of failures and success, up to the highest compatibility through which the student can (success in trying to perform the skill in a manner consistent with its goal) and this is what the researchers wanted to reach, in order to teach them performance within the conditions of real competition for the game, and the researchers believe that the vital role played by the style of rapid play with the level of performance of biokinetic capabilities in football led to the superiority of the research sample, This is what achieved the goal and imposed the search

Hence, it is clear the effectiveness and impact of these exercises clear according to the statistical significance in the experimental research sample, where the researcher used the law (t) statistical for independent samples as the value of t was

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T<sup>7</sup> . Nishikimi, y. Nakagawa, N. Minamino, M. Lakida, K. tabei A. Fujishima. 309 (2015) R 639-49.

Souza<sup>8</sup> RR, Caldeira CA, Carbone PO, Piance EV. Influence of glutamine on the effect of resistance exercise on cardiac ANP in rats. *Rer Bras cienc esporte*. 2015; 37 (1) : 74-9.

less than the level of significance (0.05), which indicates that there are significant differences between the post-test of the control group and the post-test of the experimental group and the post-test of the experimental group.

The researcher attributes the reason for this development in the post-tests of the experimental group and for both variables BNP - ANP as a result of the tactical exercises in the style of fast play prepared by the researcher, where its impact was positively reflected on the players of the experimental group, and that the tactical exercises in the style of fast play and according to the statistical results were positive in raising the level of hormonal BNP - ANP And biokinetic capabilities, which leads to the fact that the higher the proportion of the hormone in the heart, the better the pregnancy, as it acts "as a powerful dilator of capillary blood vessels as well as responsible for the stability of the body's water, sodium, potassium and fat, and secretes this hormone in response to high blood pressure, as these hormones reduce water, sodium and lipids in blood vessels, so it lowers blood pressure".<sup>9</sup>

#### 4. Conclusions and recommendations

##### 4.1 Conclusions

Through the findings of the researcher, the following results are produced:

1. The exercises were tactical in a quick play style that had a positive role in raising the level of the hormone BNP - ANP and developing biomotor capabilities, and this is indicated by the significant differences between the pre- and post-tests of the experimental group.
2. The reliance on balanced training and thoughtful effort led to the development of the experimental group in the level of BNP-ANP hormones and motor abilities.
3. The higher the concentration of BNP-ANP hormones resulting from physical exertion, the better the players' ability to perform skills and continue to perform them.

##### 4.2 Recommendations

In light of the research conclusions, the researcher recommends the following:

1. The need for great attention to the tactical exercises in the style of fast play by football coaches because of their great benefit in raising the level of hormones BNP - ANP and developing biomotor abilities, especially for players of age groups.
2. The need to conduct research for the same variables for other age groups.
3. The need to conduct a study to identify the extent of the impact of tactical exercises in the style of fast play in improving the level of hormones BNP - ANP in other sports events, especially team games.

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<sup>9</sup> - a. de. Bold. Atrial natriuretic factor: a hormone produced by the heart. Science. 1985: 230 (4727): 767 – 770.

4. Emphasis on the use of tactical exercises in a quick play style during different preparation periods (special preparation), pre-competitions, competitions
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### A sample training curriculum prepared within a week

|                           |               |           |
|---------------------------|---------------|-----------|
| Module Objective          | Stage         | The week  |
| Physical, Skillful, Plans | Special Setup | The first |

| Trainin<br>g Unit<br>Time | Total<br>exercis<br>e time | Total<br>workou<br>t time | Exercis<br>e time | Comfort |         | volume  |    | Inte<br>nsit<br>y | Exercise             | Training<br>Module | The<br>week  |
|---------------------------|----------------------------|---------------------------|-------------------|---------|---------|---------|----|-------------------|----------------------|--------------------|--------------|
|                           |                            |                           |                   | Mug     | as      | Mu<br>g | as |                   |                      |                    |              |
| 50.5<br>min               | 18min                      | 180 s                     | 60 s              | 120 JDm | 130 r.d | 2       | 3  | 80<br>%           | Exercise<br>number 1 | The first          | The<br>first |
|                           | 16.5<br>min                | 165 s                     | 55 s              | 120 JDm | 130 r.d | 2       | 3  | 85<br>%           | Exercise<br>number 2 |                    |              |
|                           | 16 min                     | 320 sec                   | 80 s              | 120 JDm | 130 r.d | 2       | 2  | 90<br>%           | Exercise<br>number 3 |                    |              |

|                       |               |          |
|-----------------------|---------------|----------|
| Module Objective      | Stage         | The week |
| Skill, Plan, Physical | Special Setup | First    |

| Trainin<br>g Unit<br>Time | Total<br>exercis<br>e time | Total<br>workou<br>t time | Exercis<br>e time | Comfort |         | volume  |    | Inte<br>nsit<br>y | Exercise             | Training<br>Module | The<br>week  |
|---------------------------|----------------------------|---------------------------|-------------------|---------|---------|---------|----|-------------------|----------------------|--------------------|--------------|
|                           |                            |                           |                   | Mug     | as      | Mu<br>g | as |                   |                      |                    |              |
| 40 min                    | 11 min                     | 165 s                     | 55s s             | 120 JDm | 130 r.d | 2       | 3  | 85<br>%           | Exercise<br>number 4 | The<br>second      | The<br>first |
|                           | 13 min                     | 130 sec                   | 65 sec            | 120 JDm | 130 r.d | 2       | 2  | 90<br>%           | Exercise<br>number 5 |                    |              |
|                           | 16 min                     | 240 sec                   | 80 s              | 120 JDm | 130 r.d | 2       | 3  | 80<br>%           | Exercise<br>number 6 |                    |              |

|                                       |               |          |
|---------------------------------------|---------------|----------|
| Module Objective                      | Stage         | The week |
| My plans , my skills , my<br>physical | Special Setup | First    |

| Trainin<br>g Unit<br>Time | Total<br>exercis<br>e time | Total<br>workou<br>t time | Exercis<br>e time | Comfort |         | volume  |    | Inte<br>nsit<br>y | Exercise             | Training<br>Module | The<br>week  |
|---------------------------|----------------------------|---------------------------|-------------------|---------|---------|---------|----|-------------------|----------------------|--------------------|--------------|
|                           |                            |                           |                   | Mug     | as      | Mu<br>g | as |                   |                      |                    |              |
| 43 min                    | 22.5<br>min                | 225 s                     | 75 s              | 120 JDm | 130 r.d | 2       | 3  | 85<br>%           | Exercise<br>number 7 | Third              | The<br>first |
|                           | 8.5 D                      | 130 sec                   | 65 sec            | 120 JDm | 130 r.d | 2       | 2  | 90<br>%           | Exercise<br>number 8 |                    |              |
|                           | 12 min                     | 210 sec                   | 70 s              | 120 JDm | 130 r.d | 2       | 3  | 80<br>%           | Exercise<br>number 9 |                    |              |