

Study on the errors of the diagonal attack to the right and their correction by physical education and sports in the game of football-tennis in senior women

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Abstract.

According to the bibliography, the football-tennis game appeared internationally in 1922, when members of the Slavia Prague football club in the Czech Republic began to practice a sport in their free time, which they then called "football over the rope". In fact, the name football-tennis comes from the Czech word "nohejbal". In the Czech Republic and Slovakia it is considered a national sport. The Czech and Slovak football-tennis tradition and school are very strong and well-developed, which is distinguished by the professionalism of the clubs. In Romania, football-tennis has been practiced since the 1970s, under the name of "foot tennis". Between 1982-1989, the first eight editions of the Balaci Foot Tennis Cup were organized in the student complex, Regie, together with the Romanian Students' Union and the Foreign Students' Union. Football-tennis has been growing since the 80's, being a sports game that can be played both individually and collectively, with five tests: singles, doubles and triples, plus mixed doubles and triples (men + women). The increased popularity of this game led to the establishment of the Romanian Football-Tennis Federation (F.R.F.T), in 1990, the year in which the affiliation to the I.F.T.A (International Football-Tennis Association) took place. This sport is represented at national level by the National Championship (seniors, seniors and juniors), the Romanian Cup, and at the international level by World Championships, European Championships, as well as tournaments organized by sponsors on different occasions. However, the football-tennis discipline brings together certain technical elements from the following sports: (football, volleyball and tennis), the technique of hitting the ball differs both from that applied in football and that used in tennis and volleyball, which defines that the name of the discipline football-tennis together with its theoretical and practical substantiation is independent of these sports. Safety in sports and physical activity are important prerequisites for continuous participation in sports, as well as for maintaining a healthy lifestyle. For this reason, the detection of errors / mistakes in the execution of the attack diagonally to the right and the application of an individual program to correct them can lead to the prevention of accidents. This article provides an overview of the errors / mistakes found in carrying out the attack action diagonally to the right together with their correction (at the level of the senior national football-tennis team) through physical means and sports. In this study we want to report that through the game of football-tennis we can make our contribution in terms of improving fitness and correcting execution errors through exercises: stretching, mobility, elasticity and dynamic exercises, adapted to the level of the group working and used according to the mistakes made by the players.

Keywords: football-tennis, performance, exercises, technique, prophylactic program

Introduction

World football has been played in Czechoslovakia for more than 60 years (see fig. 1). In fact, the name football-tennis comes from the Czech word "nohejbal". It is considered a national sport in the Czech Republic and Slovakia. The Czech and Slovak football and tennis tradition and school are very well organized and well developed, these countries having a lot of professional clubs for this sport.

However, the International Football-Tennis Federation appeared much later than these events. Thus, on February 7, 1987 in Switzerland, the representatives of Germany, Italy, England, Switzerland and Romania founded the "International Football Tennis Association" (I.F.T.A.). Mr. Josef Rothenfluh from Switzerland was elected President of the International Forum, and the headquarters were established in the Swiss town of Biel.

In Romania, football-tennis has been practiced since the 1970s, but not under this title. Thus, in Cluj-Napoca, according to "Adevărul de Cluj" in January 30, 1993, we find an interview with Mr. G. Mihăilă, then president of the County Football-Tennis Branch, in which he tells us that in 1977-1980 he founded the club "Feet-tennis Scărișoara" trying at the same time to formalize this sport by expanding it in several cities. All this led to the creation of the Romanian Football-Tennis Federation (F.R.F.T.).

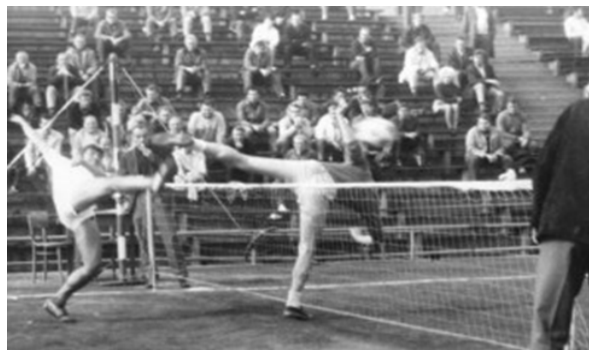


Figure 1. Attack in football-tennis



Figure 2. Blocking phase in the female senior category

The football-tennis game has been growing since the 80's. It can be played both individually and collectively, being composed of five tests. This sport is represented at the national level by the National Championship (seniors, seniors and juniors), the Romanian Cup, and at the international level by World Championships, European Championships, respectively tournaments organized by sponsors on different occasions (see fig. 2).

Practicing any sport which subjects the joints to high levels of impact and torsion during training and competition also brings about an increase in the risk of injury, which can even lead to surgery. The occurrence of trauma is ubiquitous in societies around the world, especially among high-performance athletes.

The risk of accident is present in the performance sports activity of the football-tennis game, and to prevent it we detected the errors / mistakes in the execution of the diagonal attack shot to the right and we applied the individual program to correct each error.

Methods

The study involved 6 football-tennis players from Romania, members of the national women's senior team. The age of the seniors varies between 18-38 years, and the seniority in practicing the sport is between 3-21 years, even years for CM, odd years for EC, from 2012 until now.

- Video recording and data analysis method

We used video recording with the Sony Handycam HDRCX625 camera, specially designed for sports competitions.



Figure 3. Sony Handycam HDRCX625 camcorder

The analysis was performed with the help of the video camera, Sony (see fig.3), provided with a certain function of defragmenting the movement. Motion shot video has the role of fragmenting the movement during the action in as many clear sequences as possible (see fig. No. 4).

The applications of this device perfectly synchronize the video images, analyze the movements in real time, as well as in slow-motion (the way to slow down the video movement).

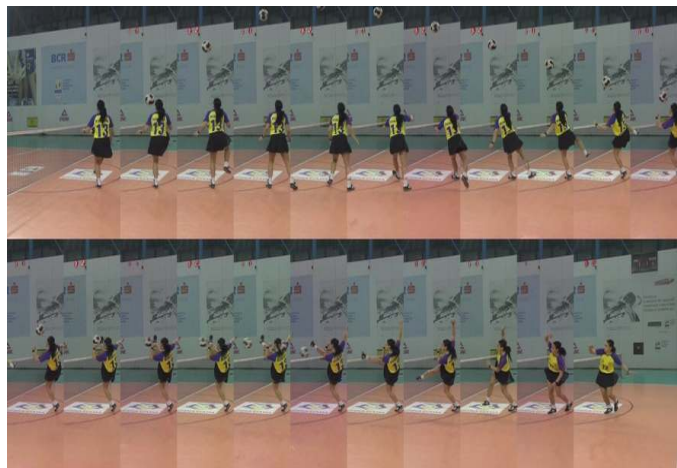


Figure 4. Work screen

- Method of pedagogical observation

It has been shown that it is the most used method in collecting data, constantly monitoring the instructional-educational process, the influences that physical and tactical training have on the team members.

With the help of this method, I wanted to orient the observation towards the sportswomen, namely on the correct execution of the exercises and the structures of exercises that they had to perform.

In the application of the observation method, the emphasis was on capturing the attention of the football-tennis athletes, a determining factor in the correct acquisition of the planned structures.

Individual program applied to research participants in order to correct mistakes /errors of execution and to prevent traumatic recurrences

Error: the support leg is positioned on the tip of the leg during the action (see fig.5):



Figure 5. The support leg is positioned on the tip of the foot at the time of the attack Exercises:

1) Starting position: standing with both legs apart at shoulder level.

Movement: performing the attack movement without lifting the tip of the support leg (from the ground) with the help of the elastic rope tied to the pole, and the other end of the rope tied to the support leg of the performer (see fig. 6).

Final position: return to initial position.

Volume 90%; intensity 70%; 20x dosing; work formation: individual.



Figure 6. Correcting the attack error by lifting the support leg off the ground

2) Starting position: sitting on both feet at shoulder level apart.

Movement: running with the elastic rope circular and stretched almost to the maximum, mimicking the attack movement (see fig. 7).

Final position: return to initial position.

Volume 90%; intensity 70%; 20x dosing; work team: with partner.



Figure 7. Correcting the error diagonally to the right

3) Initial position: standing with both feet apart at shoulder level.

Movement: Executing the attack movement on the net without lifting the support leg off the ground.

Final position: return to initial position.

Volume 90%; intensity 70%; 20x dosing; work formation: individual.

4) The same exercise but with the ball transmitted by the partner.

5) Starting position: standing with your back to the trellis, both legs are apart at shoulder level.

Movement: miming the attack movement without lifting the other foot off the ground that is tied to the trellis with a rope.

Final position: return to initial position.

Volume 90%; intensity 70%; 20x dosing; work formation: individual.

6) Initial position: kneeling facing the net.

Movement: mimicking the attack movement without lifting the support leg off the ground.

Final position: standing with both legs at shoulder level

Volume 90%; intensity 70%; 20x dosing; work formation: individual.

Error: jumping at the time of the attack move.

Exercises:

1) Starting position: standing on both feet at shoulder level.

Movement: performing the attack movement with the help of the weight vest, without lifting the support leg from the ground (see fig.8).

Final position: return to initial position

Volume 80%; intensity 70%; 20x dosing; work team: with partner



Figure 8. Correction of the jump attack error when hitting

2) Starting position: standing on both feet at shoulder level apart.

Movement: performing the attack movement on the net with the help of the weight bag tied on the support leg, when the ball is transmitted by the partner.

Final position: return to initial position.

Volume 80%; intensity 70%; 20x dosing; work team: with partner.

3) Combining the two exercises on the move, with footwork.

Error: The support leg is bent during the attack, leaving all the weight on it.

Exercises:

1) Starting position: kneeling on the balance board.

Movement: the initial position is maintained, and at the sound signal, the vertical jump will be performed with the kneeling landing in front of the balance plate, followed by the attack movement (see fig. 9).

Final position: standing on both feet apart at shoulder level.

Volume 90%; intensity 70%; 20x dosing; work formation: individual.



Figure 9. Correcting the error of the attack of the bent support leg at the time of the action

2) Starting position: standing on both feet at shoulder level on the Bosu ball.

Movement: vertical jump with landing on the knee followed by the attack movement;

Final position: return to initial position.

Volume 90%; intensity 70%; 20x dosing; work formation: individual.

3) Starting position: standing on both feet at shoulder level apart.

The movement: next to the net there will be footwork, at the sound signal, knee bends, followed by the attack with the help of the passing from the partner. Final position: return to initial position.

Volume 90%; intensity 70%; 20x dosing; work formation: individual.

Results

For each type of action, a scale was made from 1 to 6, depending on the number of errors found, giving 1 point per error. Thus, for the diagonal attack to the right, the scale contains 4 errors which results in 4 points.

The sportswomen work in 3 positions: striker, defender and lifter (the one who passes), some less in the position of striker, others more, which means that the possible mistakes / errors differ from sportswoman to sportswoman, based on the experience gained, but also the seniority in the sport practiced.

Table 1. Centralizing table of the national team of seniors

Diagonal attack to the right - before and after applying the program

Nr.	Name and surname	Years in sport	Injuries suffered during football-tennis practice	Diagonal attack error to the right	Scores Diagonal attack errors to the right	
					Initial 18.02.2021	Final 18.02.2022
1	G A	16	1. meniscus injury and loss of synovial fluid; 2. 2nd degree sprain of the left ankle; 3. tibio-tarsal rupture.	the support leg is positioned on the tip of the foot	1	1
2	R A M	10	1. grade I sprained right ankle; 2. adjacent cyst of the medial head of the gastrocnemius.	the support leg is positioned on the tip of the foot	1	1
3	C F	17	1. Grade II sprained right ankle	the support leg is positioned on the tip of the foot	1	0
4	P P	10	1. grade 1 sprained left ankle	1. jump at the moment of the blow 2. The support leg is positioned on the tip of the foot	2	1
5	S M	21	1. complete rupture, probably subacute / chronic, of the anterior cruciate ligament in the left knee.	the knee of the support leg is bent when hitting the ball, endangering the support leg to the maximum	1	0
6	N A	3	-	the support leg is positioned on the tip of the foot	1	0

Discussions

The study consisted in highlighting the errors / mistakes of the right diagonal attack, because this sort of hit is often used in the game of football-tennis, and is also the most prone to joint injuries of football-tennis players.

The occurrence of injuries causes the greatest concern for performance athletes, because they have to interrupt their sports activity for a period, whether short or long, depending on the severity of the injury they suffer. Therefore, we must first know the causes in order to prevent injuries.

Conclusions

Most of the athletes of the national football-tennis team suffered joint injuries in the lower limbs. Following the program applied to correct the errors / mistakes of the diagonal attack to the right, only three athletes of the national football-tennis team were corrected.

In a number of 3 subjects, the errors / mistakes of the diagonal attack to the right were not corrected by the exercise program. The long period of time in which they performed the diagonal attack to the right repeatedly at each workout (3 workouts per week) shows that these errors had to be detected from the learning phase.

Given the fact that the athletes have a long history of practicing this sport, the program implemented to correct the errors / mistakes of the attack and prevent the recurrence of injuries had positive feedback.

The results obtained in the research lead us to the conclusion that in order to continue to achieve performance in women's football-tennis both nationally and internationally, the athletes' training must focus on physical and technical-tactical training, especially on improving performances, techniques and individual tactics.

The originality of this paper is represented by the fact that the research was carried out on the athletes from the national football-tennis team, an aspect that we consider to have a major impact on this sport, not very developed and publicized in Romania, but with major and notable results.

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