



ASPECTS OF PHYSICAL EFFORT IN THE MODERN GAME OF TENNIS

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Abstract

The modernization and continuous development of the training process, the continuous development of the training process that the players carry out together with their staff, lead to a deepening and continuous research from the specialists. At the same time, the evolution of the competition calendar and the increase in the number of tournaments have led to a permanent research of specialists in this sport in terms of physical effort characteristics and how to approach the physical training needed to complete the competition year. This paper aim is to discuss the technical-tactical, bio-motor, and psychological parameters of tennis that make the game one of the most complex sports.

Keywords: tennis, physical effort, intensity, complexity, volume.

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1. Introduction

This sport that we call tennis today is a real challenge for specialists, and the main reason why today's tennis is a huge challenge in terms of research is the development of the competitive calendar by increasing the number of tournaments and, implicitly, the matches played every year. The efforts of specialists have intensified, a first objective of this process being to constantly re-evaluate the methodology of physical training and of course to look for new methods to improve this methodology of high performance tennis.

All these evaluations and researches that are carried out by tennis specialists could be said to have as common goal the modernization, and here we refer to the improvement of the physical and mental training of high performance players, to the improvement of all technical aspects of the high performance game. tennis, and last but not least, the permanent development and modernization of all tactical strategies that from a theoretical point of view must be in a permanent variation.

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The literature presents the high performance tennis game as a result of the development of modernism in the game of tennis. Through this development, the offensive side of the tennis game technique in the individual test was approached, but also the offensive side of the tactics, having as common objective the finalization of the points during the match as fast as possible.

2. . The characteristics of effort in the game of tennis

The environmental conditions in which the tournaments take place, the level and type of competitiveness, the game materials, the rules and the tactical and technical characteristics are the determining factors of the tennis effort, this aspect can be said to have a particular note.

In a methodological framework, we can present that the effort that a tennis player makes is composed of several elements:

- Short distance running;
- Bending;
- Lunge;
- Jumps and returns;
- Arm activity;
- Rocket activity.

The specific effort in the game of tennis is presented by the following aspects:

- Volume;
- Intensity;
- Complexity;
- Character;
- The structures and forms of manifestation of the main movements;
- Energy metabolic processes.

The nature of the effort in the game of tennis is presented as a variable period, the intensity is variable and the content and period of the game actions are directly dependent on a large number of factors:

- Meteorological factors;
- Importance of the game;
- Playing surface;
- Preparation stage of the opponents.

In the totality of the playing time of a match we have each pause at the end of each point, and the pauses from the odd games, these time intervals are those observed and established before the game by a regulation. Interrupting the game through these breaks leads to a jerky effort during the game.



The intensity of the effort in the game is the reporting of the work done per unit of time, and as a consequence of the specifics of the game we are talking about the degrees of demand of the athlete.

Within the intensity of the effort, we are presented with several aspects that must be taken into account: the number of breaks, the duration of breaks, the speed of movement of athletes on the field but also the speed of execution, and also the frequency of ball exchanges.

Today's tennis differs in many ways from the tennis of the past, an aspect that we can expose is the speed of ball exchanges, the development of all technical and tactical procedures, the evolution of the conditions of a match and the training process led to this amplification. of the game of tennis.

The specialists of the sports branch present certain biological aspects, these intensities of the effort within the game are presented by phase alternations of submaximal and maximum efforts. The player resists this effort because during the match he has a large number of breaks, various studies show that at one minute played, the athlete benefits from a break time of 3-5 minutes.

The level of intensity that a player deposits during the match also depends on:

- The type of playing surface;
- The specifics of the game;
- The value balance of the players;
- Individual value;
- Children's intake of balls.

The complexity of the effort together with the intensity forms the dynamics of the effort. This complexity in our sport is exposed by: the number of technical procedures, but also tactical, modes of execution, level of difficulty, disruptive factors, execution conditions, etc.

The complexity in tennis has various forms, both in competition and in training, the effort is multilateral, the player is subjected to situations to which he must quickly find solutions, this aspect is due to the high pace of play. In these presentations we can specify that the current game is played based on a high versatility, we are talking about an activity of tactical-technical, bio-motor, and psychological parameters.

A very important aspect that we need to present is the correlation between intensity, volume, and of course the complexity of training. The training viewed through the modern conception presents an equal exposure of the factors participating in the dynamics of the effort, the separation of these factors can be caused only for didactic reasons. This correlation between intensity, volume and complexity defines, together with the dosage of each exercise, the specialized knowledge and agility of each specialist. The level of intensity, the level of complexity, and the level of volume must be determined by a number of factors:



- Individual value;
- Preparation period;
- Age;
- Adaptation to effort.

The intensity, volume and complexity must in principle be in a constant development, closely related to the player's results. The task of the coach is to determine the element and the moment of each component, which is practically the basic element in progression. Depending on the capacity and age of each tennis player, the following aspects are presented: (V = Volume, I = Intensity, C = Complexity)

<i>Children U12</i>	V = 50-60%;	I = 10-20%;	C = 5-10%
<i>Children 13-15 years old</i>	V = 60-70%;	I = 20-40%;	C = 10-25%
<i>Juniors 15-18 years old</i>	V = 70-80%;	I = 40-70%;	C = 25-50%
<i>Senior</i>	V = 80-100%;	I = 70-100%;	C = 50-80%

Observing these parameters, we can expose the fact that the only element that is in progression is the volume. At the age of 13-15 we notice an increased level of intensity but which is not higher than the volume. From the age of 18, the threshold of all structures is at a higher level, here comes the value of each subject, the level of adaptation but also the interval of preparation, which determine the components of evolution. The intensity of the effort is the one that conditions the start of the sports form, in this aspect we will expose:

- In the preparation stage we will have the volume as the main element of the preparation;
- In the pre-competitive stage we will have: volume, intensity, complexity;
- In the competitive stage we will have: intensity, complexity, volume.

Conclusions

The complexity of the training will never be able to reach the level of complexity during the game, the training begins to be subordinated to the tournaments, aiming at a streamlined planning, and by their succession to cover the degree of complexity by another 20%, a level that could not be accomplished through preparation.

To play tennis is to master a whole range of skills and qualities. Players have to toss a ball, strike a ball, run backwards, forwards and sideways, slide and jump. Tennis requires hand-eye coordination, strength, speed, stamina and flexibility. An intuitive understanding of angles and spins is a necessary requirement. The beauty of tennis is it makes this complexity looks simple.



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