DOI:10.2478/tperj-2021-0006

Defensive vs offensive style on clay courts

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Abstract

Introduction. In tennis, knowledge of the characteristics of different playing styles is essential to achieve the desired results and to improve specialized technical-tactical procedures according to the playing surface on which the match is played, together with the individual and opponents' peculiarities.

Purpose. Adopting a style of play that is suited to the individual characteristics of the player, the opponent and the characteristics of the playing surface can improve the chances of winning for the player who is mostly on the defensive. This comparative study aims to highlight the differences between the two players in a tournament on a slow surface, using the chosen methods and means.

Methods. The main research method was the method of analysing the 6 matches using different statistical indices. In doing so, the average results of all 6 matches played by the two players up to the final were compared with the results of the statistical indices of the final match. For this study we have selected the main indices for the topic.

Results. The results of the study showed that a defensive player spends more time on the court during a tournament. With the help of data analysis and recordings, it can be observed that the offensive or defensive player stands out according to the studied parameters. Some parameters are specific to a style of play. Also, a defensive player with good speed and agility can adapt more easily on a slow surface (clay).

Conclusions. The playing surface can negatively affect the results obtained in major tournaments if the emphasis in training is not placed on developing a game adapted to individual characteristics. Also, the player who can adapt during the match has a better chance of winning a Grand Slam tournament.

Keywords*: defensive, offensive, tennis, individual characteristics*

Rezumat

Introducere. În tenis, cunoaşterea caracteristicilor stilurilor de joc este esenţială pentru obţinerea rezultatelor dorite precum şi îmbunătăţirea procedeelor tehnico-tactice specializate în funcţie de suprafaţa de joc pe care se dispută meciul împreună cu particularităţile individuale şi ale adversarilor.

Scop. Adoptând stilul de joc potrivit particularităţilor individuale, ale adversarului şi caracteristicilor suprafeţelor de joc, se pot îmbunătăţi şansele de câştig a jucătorului aflat în majoritatea timpului în defensivă. Acest studiu comparativ îşi propune să evidenţieze cu ajutorul procedeelor şi mijloacelor alese, diferenţele dintre cele două jucătoare aflate într-un turneu pe o suprafaţă lentă.

Metode. Principala metodă de cercetare utilizată a fost metoda analizei celor 6 meciuri prin indici statistici diferiţi. În cadrul acesteia, s-a procedat la compararea mediei rezultatelor obţinute în toate cele 6 meciuri disputate de cele două jucătoare până la accederea în finală cu rezultatele indicilor statistici din ultimul meci (finala). Pentru acest studiu am selectat indicii principali pentru tema abordată.

Rezultate. Rezultatele studiului au arătat că un jucător defensiv petrece mai mult timp pe teren în timpul unui turneu. Cu ajutorul analizei şi înregistrării datelor se observă ca jucătorul ofensiv sau defensiv se evidenţiază în funcţie de parametrii studiaţi, anumiţi parametrii fiind specifici unui stil de joc. De asemenea, un jucător defensiv cu o bună viteză şi agilitate se poate adapta mult mai uşor pe o suprafaţă lentă (zgura).

Concluzii. Suprafaţa de joc poate afecta rezultatele obţinute în marile turnee dacă nu se pune accent în antrenament pe dezvoltarea jocului adaptat particularităţilor individuale. De asemenea, jucătorul care se poate adapta în timpul meciului are o şansă mai mare de a câştiga un turneu de Grand Slam.

Cuvinte cheie*: defensiv, ofensiv, tenis, particularităţi individuale*

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Introduction

Tennis is one of the most popular sports today and is played all over the world. Knowing the characteristics of the different styles of play is one of the essential parts of ensuring the desired performance. In addition to this, it is important to know the peculiarities of the opponents and the surface of the courts where the competition is held.

In high performance environments, all these things are studied, with players meeting on the tennis court countless times throughout their careers. From the height of the ball after contact with the ground, to the number of slides a particular player makes during the match (clay). [1]

The development of equipment and materials has made most top players close in value and it takes a whole team (coach, physical trainer, physiotherapist, sports psychologist, statistician, etc.) to make that small difference that the outcome of a match hangs on. At present, physically developed players and ball-striking strength players are at an advantage. Tennis relies on a lot of dynamism, players are often put in situations where they need to make quick decisions and to act as fast as possible in order to be able to perform technically and tactically with maximum efficiency in the different situations during a match. This is why the emergence of champions has led to the improvement of specialized technical and tactical procedures according to the playing surface on which the match is played and the specific characteristics of the individual and of the opponents; the emergence of tennis academies or schools with different training protocols for those involved in competitive sport; the development of specific materials and equipment. [2]

The players most frequently encountered are either offensive or defensive players.

The offensive player relies on:

- Powerful shots
- Direct winning shots;
- Higher number of unforced errors;
- Positioning on the court near and even on the baseline.

Defensive style is based on:

- Constant shots;
- Accurate shots;
- Passing shots;
- Switching from defense to offense at favorable moments;
- Good fitness based on speed and agility;
- Positioning on the court in zone 5. [3]

This is also visible in the 2018 women's final of the Grand Slam tournament Roland Garros played between Simona Halep (Romania) and Sloane Stephens (USA).

Coaches need to know their athlete's qualities to be able to shape the right and effective style of play to achieve the best results. This needs to be done from an early age and should undergo small changes as the child moves up to a higher category; and at senior level there is a general pattern of play that underpins the athletes, but it is shaped by the opponent and the playing surface.

Areas of the court:

Zone 1 - the area of all decisive shots

Zone 2 - the area for all volleying and decisive shots

Zone 3 - the attacking shots zone

Zone 4 - service return zone

Zone 5 - defense zone [4]

Nowadays, the game of tennis is played on different playing surfaces, surfaces that have continually evolved and developed to increase the efficiency of the bounce of the ball and increase the speed of the ball when it is in play. According to these characteristics in the evolution of surfaces, there are 3 main categories:

1. Slow playing surfaces
2. Medium playing surfaces
3. Fast playing surfaces [5]

We will focus on a brief comparison of the 3 surfaces, which are the surfaces on which the 4 Grand Slam tournaments are played.

Table I. Comparison of the surfaces [6]

Surface	Game speed	Average duration of a point	Strokes frequency
Clay	Slowest	10,7 s	6.8 strokes
Grass	Fastest	5,4 s	2,1 strokes
Hard	Average speed	6,6 s	5,1 strokes

Material and methods

In this research paper we studied two professional players in the WTA rankings, playing in the women's final of the biggest clay court tournament. The Roland-Garros was held in Paris, France over a 14-day period in which matches were played with a one-day break between rounds. The study aimed to

analyze the strokes in matches played by the two women in a clay court tournament (slow surface), the duration of the matches and other indices specific to the two styles of play.

Simona Halep is a 60 kg player with a defensive style of play and Sloane Stephens is 62 kg and practices an offensive style of play. [7]

Using match observation, recordings and analysis, the arithmetic mean, percentage calculation, range and standard deviation were calculated. All these are shown in the tables and graphs.

Aim and objectives of the research

The aim of the paper is to show that adopting the style of play according to the individual, opponent and playing surface characteristics can improve the chances of winning for the player who is mostly on the defensive. This comparative study aims to highlight the differences between the two players in a tournament on a slow surface, using the chosen methods and means. To be a professional player you need to master all the important components: physical, technical, tactical, theoretical, psychological and moral. We will also be able to see significant differences between the two styles.[8]

Hypothesis

Based on the assumption that tennis is a sport dominated by female players practicing an aggressive game and with a well-developed physique in terms of muscle and explosive strength in ball-striking, we can formulate the following hypothesis: if, in the course of match preparation, emphasis would be placed on training specific to the playing surface and the opponent's playing style, then the chances of obtaining favorable results in major tournaments are much higher.

Research methods

The main research method used was the method of analyzing the 6 matches using different statistical indices. Comparison of the average of the results obtained with the results of the statistical indices of the last match played between the two players. For this study we have selected the main indices for the topic. We started with the duration of the 6 matches played by both sportswomen until the final [9, 10].

Table II. Duration of the matches

	Simona Halep	Sloane Stephens
R128	94'	49'
R64	68'	62'
R32	88'	146'
R16	59'	52'
QF	134'	70'
SF	92'	77'
Average time/ match	89'16"	76'
Amplitude	75'	97'
Standard deviation	26.08	14.65

Legend: R128- first round, R64- second round, R32- third round, R16- fourth round, QF- quarterfinals, SF- semifinals.

We can observe the 4 parameters chosen to highlight the differences between the two athletes in both the first 6 matches and the final. In the first column we have averaged the points per match in the total of 6 matches played by the two until they reached the final stage of the tournament. In the second column, the shots taken at the time of the final for both players are shown.

Table III. Percentages for each player according to the chosen parameter

	Simona Halep	Sloane Stephens
First serve	60/79- 76%	61/81- 75%
Points won on first serve	37/60-62%	34-61- 56%
Points won on second serve	10/19- 53%	9/20- 45%
Break points	5/6- 83%	3/6- 50%
Points won on return	38/81-47%	32/79- 41%
Winners	18	16
Unforced errors	26	39
Average speed on first and second serve	143 kph 120 kph	151 kph 125 kph
Net approaches	5/5- 100%	2/4- 50%
Net points	10/12- 83%	4/7- 57%

Legend: kph- kilometer per hour

Results

The results of our study are listed below:

Table IV. Points won by number of strokes

	Simona Halep	Sloane Stephens
1-3 strokes	29	22
4-6 strokes	17	15
7-9 strokes	17	20
+ 10 strokes	22	18

Table V. Points during the tournament

	Average points/ match (6 matches)		Points from the final	
	Halep	**Stephens**	**Halep**	**Stephens**
Points won on first serve	24.6	26.6	37	34
Points won on second serve	12.6	9.1	10	9
Break points	6.33	5	5	3
Points won on return	38	33.6	38	32
Arithmetic mean	20.382	18.5750	22.50	19.50
Amplitude	31.67	28.6	33	31
Standard deviation	13.978	13.713	17.45	15.80
Student Test	**0.184**		**0.254**	

We can observe the 4 parameters chosen to highlight the differences between the two sportswomen both in the first 6 matches and at the time of the final. In the first column we have averaged the points per match in the total of 6 matches played for the two to reach the final stage of the tournament. In the second column, the shots at the time of the final for both players are shown.

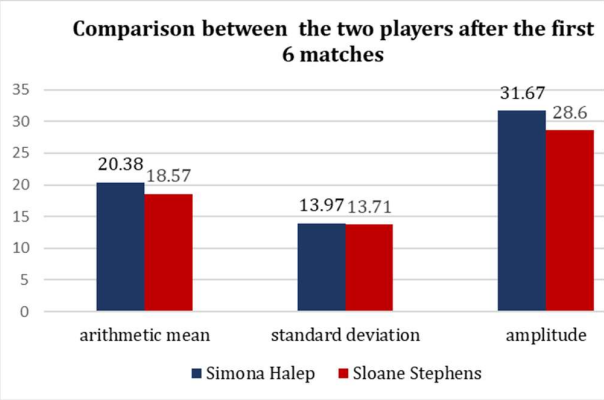

Figure 1. Comparison between the two players after the first 6 matches

From the graphic above we can see the results of the index calculation. These results are obtained by calculating the average of the parameters/match. As can be seen from the graph, the arithmetic mean of Simone Halep is 20.38 and that of Sloane Stephens is 18.57.

Standard deviation (S) is the most widely used indicator for normal frequency distributions. We can see a small difference between the two, in Halep it is 13.97 and in Stephens it is 13.71.

The width (W) represents the difference between the extreme values and in this case it is 31.67 for Halep and 28.6 for Stephens.

The T-test for the 6 matches gave a value of 0.1846, resulting in no statistically significant difference.

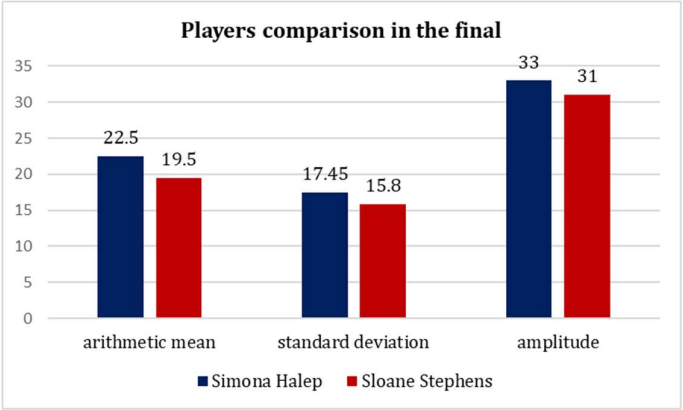

Figure 2. Players comparison in the final

From the graphic above we can see the results of the index calculation. These results are obtained after the finals.

In the T-test for the final the value of 0.2549 was obtained, resulting in no statistically significant differences.

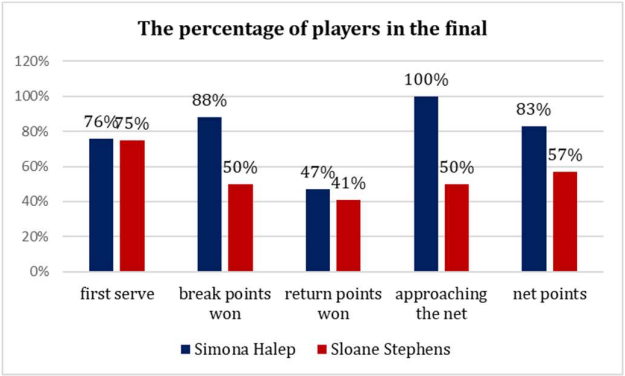

Figure 3. The percentage of players in the final

We can see a significant difference in the percentage of break points won: 88% Halep and 50% Stephens. In return points won Halep managed a percentage of 47% while Stephens has a percentage close to 41%. Due to the change of tactics during the match, Halep had more points won on returns and points played from the net compared to Stephens: 100% and 50% (S.H) 83% and 57% (S.S).

Discussion

Playing styles matter in today's tennis, with aggressive play predominating regardless of age category. The study "An analysis of competition in young tennis players" looks at participants in a competition who played with the same type of balls. Play time is influenced by the type of tournament, age and competitive standard of the players. Total play time is less than resting time, fundamentally due to the rules, which allow no more than 20 s between points and no more 90 s at change of ends [11]. During the pauses between hitting the ball or a change of ends, tennis players think about the next point or next game. The time spent on court for girls is 99.66 minutes/match [12]. Authors have reported an average number of strokes per rally of between 5.1 and 5.3 on the same surface [13]. Research on elite players on clay courts reported an average of 2.7 strokes per rally [14] [15] again highlighting the differences between playing surfaces. The number of strokes per rally is strongly related to the average duration of rallies. In our study, most points were played with an average of 1-3 strokes during the rally, followed by rallies with more than 10 strokes compared to the study showing the average strokes in national and international professional players being 5-6 strokes [12].

In another presentation - "Different types of tennis players" , the author says that a defensive player is characterized by good agility and speed, but also fewer unforced errors, while the offensive player has strong baseline shots being able to make more errors. The offensive player is in control and tries to dictate the game by hitting power shots to execute direct winning shots. The defensive player is quick and has very good court coverage.

Conclusions

Following the results obtained, these are the conclusions we have drawn:

1. The hypothesis of the work is confirmed, using specific training for the playing surface and the players' peculiarities, favourable results are obtained in Grand Slam tournaments.
2. Stephens spent less time on court until the final. This is a typical characteristic of an offensive player.
3. The average speed on serve I and II is higher for the American player.
4. Halep's increased percentage of return winners and break points scored, which shows that a defensive player relies heavily on the accuracy of her return shots.
5. After losing the first set, Halep changed her game tactics by coming closer to the net more often and winning more points from the net compared to her opponent.
6. Throughout the match, the Romanian player managed to gain ground by playing more from court 4 (at 0.5m and from the baseline).
7. The unforced errors are more on the side of the American player, as she has a more risky style of play.
8. In sets 2 and 3, Halep entered the court more using her counter-foils, which led to a higher number of forehand winners.
9. It is unusual for an offensive player to win more points comprising 7-9 shots.
10. Stephens is an offensive player who relies heavily on putting her first serve on the court, hence the high number of points won on the first serve.
11. Simona Halep shows better speed and agility. She is considered the fastest player in the WTA rankings, running with a top speed of 23.04 kph.

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