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Research on the Technical and Tactical Characteristics of Li Shifeng, the Badminton Champion of the Hangzhou Asian Games

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Abstract

This paper takes Li Shifeng, the men's singles champion of badminton at the Hangzhou Asian Games, as the research object. Through video analysis and data statistics, it systematically analyzes his serve and return serve techniques, as well as the characteristics of his forecourt, midcourt, and backcourt tactics and techniques during the competition. The research finds that Li Shifeng's core serve strategy is the backhand serve to the short service court, combined with side-spin and short-distance serves to form a tactical advantage. His return serves mainly consist of net shots and push shots, with the third shot connecting with techniques such as chop, push, lift, and smash to form a diversified offensive system. In the forecourt, he controls the rhythm with net shots; in the midcourt, he switches between defense and offense through net blocks and clear shots; in the backcourt, he mainly scores with powerful smashes, supplemented by the consistency of high serves and drop shots to confuse the opponent. The research concludes that his technical and tactical characteristics reflect the modern men's singles tactical logic of "control - maneuver - attack", which can provide a reference for badminton-specific training.

Keywords

Badminton; Li Shifeng; Technical and tactical characteristics; Hangzhou Asian Games.

1. Introduction

1.1. Research Background

The men's singles badminton event is developing towards a composite competitive direction of “fast, fierce, accurate, and dynamic”, and the comprehensive technical and tactical skills and on-site adaptability of athletes have become the key to winning. The men's singles badminton event at the 2023 Hangzhou Asian Games brought together top players from Asia. As a new generation player from China, Li Shifeng won the championship with a perfect record of five games, showcasing a new trend in contemporary men's singles competition through his technical and tactical performance[1]. Thoroughly analyzing its technical application rules and tactical thinking is of great significance for revealing the competitive characteristics of men's singles events and optimizing training strategies[2].

1.2. Research Purpose and Significance

This study aims to quantitatively analyze Li Shifeng's technical and tactical data in the Hangzhou Asian Games, extract his core technical characteristics and tactical logic, and provide theoretical basis for the training and preparation of China's men's singles badminton event[3]. The research significance lies in: firstly, enriching the research cases of high-level male singles athletes' technical and tactical skills; The second is to provide a technical template for the training of young athletes that can be referenced; The third is to provide data support for coaches to develop personalized training plans.

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2. Research Objects and Methods

2.1. Research Object

Taking Li Shifeng's technical and tactical performance in the men's singles badminton competition at the 2023 Hangzhou Asian Games as the research object, five matches (including finals) he participated in were selected as the analysis sample, with opponents including Murad, Xiben Quan Tai, Jin Ting, Prannoy, and Shi Yuqi.

2.2. Research Methods

Video analysis method: Obtain game videos through platforms such as CCTV Sports and Tencent Video, and use slow playback, freeze frame, and other methods to encode and statistically analyze key technical aspects, recording indicators such as serving landing points, receiving methods, and offensive and defensive transitions.

Data statistics method: Establish a technical and tactical indicator system, including serving type, receiving technique, number of ball rubs/picks in the front court, frequency of blocking/drawing in the middle court, success rate of shooting in the back court, etc., and use Excel for data processing.

Logical analysis method: Combining badminton tactical theory, summarizing and deducing data, extracting the regular characteristics of Li Shifeng's technical and tactical application.

Comparative analysis method: Compare Li Shifeng's technical and tactical data horizontally with his opponent to highlight his advantages and differences.

3. Research Results and Analysis

3.1. Technical and tactical characteristics of serving and receiving

Application of serve technique: Li Shifeng served a total of 222 times, including 208 backhand net shots (93.69%) and 14 backhand backcourt shots (6.31%), without using forehand serve technique. His backhand serve has three major characteristics: firstly, precise landing, with 82% of the net shots falling within 30 centimeters of the serving line, limiting the opponent's ability to receive and attack; Secondly, the rotation is variable, with side spin accounting for 41%, which increases the difficulty of opponents' judgment through the irregular bouncing of the ball; Thirdly, the consistency of the movements is high, with a similarity of 90% between the pre net and backcourt ball preparation movements, effectively confusing the opponent. Compared with his opponents, Li Shifeng's utilization rate of backhand net shots is higher than that of Prannoy (70.37%), but lower than that of Shi Yuqi (100%). The difference lies in Li Shifeng breaking the rhythm with a small number of backcourt serves (6.31%), while Shi Yuqi relies entirely on net control.

Application of receiving and serving techniques: In the receiving and serving stage, Li Shifeng rubbed and released the ball 48 times (34.29%) and picked the ball 74 times (52.86%), accounting for a total of 87.15% of the total. When facing a small ball in front of the net, its rolling and releasing strength is 15% higher than the opponent's average, forcing the opponent to passively take the ball; When facing the backcourt serve, the pick and drop points are mostly concentrated in the two corners of the opponent's baseline (accounting for 68%), effectively mobilizing the opponent's running.

It is worth noting that Li Shifeng used kill shots 6 times (4.29%) during the receiving and serving stage, all targeting the opponent's low serving quality, with a direct scoring rate of 67%, reflecting his initiative in attacking consciousness.

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3.2. Frontline Technical and Tactical Characteristics

Li Shifeng has used a total of 640 techniques in the front court, including 212 ball rubs (33.13%), 31 ball picks (4.84%), and 54 diagonal hooks (8.44%). The core tactical logic is manifested as: prioritizing control in front of the net: creating spin differences by rolling and releasing the ball, forcing the opponent to return the ball too high, and creating opportunities for the backcourt to kill the ball. The data shows that the conversion rate of the third attack after rolling and releasing the ball reached 42%, which is higher than the average level of the opponent (35%). Smooth transition between offense and defense: 42 saves (6.56%) in the front court, with a success rate of 76%, and quickly returning to midfield after the save, forming a secondary attacking posture. For example, in the final against Shi Yuqi, he scored continuously through the combination of "dribbling+draw", and this tactic accounted for 23% of the score in a single inning. The route changes are diverse: the usage rate of diagonal hooking technique (8.44%) is higher than that of Nishimoto Kunitaka (5.30%) and Shi Yuqi (4.86%), and the opponent's defensive center of gravity is disrupted by shifting their position through diagonal lines[4].

3.3. Technical and tactical characteristics of midfield

As a pivotal point in the transition between offense and defense, Li Shifeng has used a total of 412 techniques in midfield, including blocking tennis balls 259 times (62.86%), drawing flat shots 63 times (15.29%), and taking high shots 90 times (21.84%). Its tactical characteristics are manifested as: blocking the net to control the rhythm: combining blocking the far net with the near net, with the far net blocking the ball accounting for 61%, forcing the opponent to stay away from the midfield; Close net blocking accounts for 39%, limiting the opponent's attacking angle. However, frequent use of the gear mesh resulted in an error rate of 12%, higher than Jin Ting's (8%), and further stability improvement is needed[5]. Positive pressure in draw: The average speed of draw is 165km/h, which is faster than Prannoy's (152km/h), and quickly connects to suppress the opponent's attacking space. In the quarterfinals against Jin Ting, he scored 8 straight draws, accounting for 35% of the midfield score. Passive transition is reasonable: High balls often use parabolic designs, with the average vertex of the arc 1.2 meters higher than the opponent, to buy time for oneself to return. The success rate of defense after passive ball picks reaches 78%.

3.4. Technical and tactical characteristics of the backcourt

Li Shifeng used 646 techniques in the backcourt, including 273 kills (42.26%), 173 high shots (26.78%), and 169 hang shots (26.16%), forming an offensive system of "kill hang combination, with killing as the main focus": the killing efficiency is outstanding: the straight score rate of heavy kills is 38%, the diagonal score rate of slashing is 29%, and the speed of connecting to the internet after killing is 0.3 seconds faster than the opponent, forming a continuous attack. Its head to head diagonal killing technique has strong concealment, and the opponent's predicted success rate is only 41%, which is the main scoring method. Hanging ball tactical restraint: Hanging ball landing points are mostly concentrated near the frontcourt sideline (72%), with a consistency of 90% with high and far ball movements, effectively confusing opponents. In multi shot stalemate, the combination of "high and far balls+hanging balls" is used to mobilize the opponent to run forward and backward, increasing the opponent's movement distance by an average of 12 meters per round. Passive defense is steady: He has 31 passive draws (4.80%) and a 74% return rate, which is higher than Murad's (68%), reflecting his ability to withstand pressure in the backcourt[6].

3.5. Comprehensive Tactical Logic

Li Shifeng's technical and tactical system presents a "three-dimensional synergy" feature; Space control: By adjusting the opponent's physical fitness through front and back games (with an average movement distance of 45 meters per round), Shi Yuqi's physical fitness decreased by

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23% compared to the first game in the final. Rhythm change: Combining fast break and stalemate, the score of 3-5 beats of fast attack accounts for 41%, and the score of 10 beats or more of stalemate accounts for 29%, avoiding the opponent's adaptation to a single rhythm. Psychological advantage: With a key score (19-19 draw), the winning rate reached 75%. In the game against Jin Ting, he calmly handled the pressure of three consecutive match points and ultimately won 22-20, demonstrating strong psychological resilience.

4. Conclusion and Suggestions

4.1. Conclusion

The core of Li Shifeng's technical and tactical performance is to use a backhand serve to control the net, combine killing and hanging to take the initiative, and quickly transition between offense and defense, which is in line with the development trend of "control assault" in modern badminton men's singles. Its advantages lie in the rotation control in front of the net, the diversity of kills in the backcourt, and the psychological quality of key points; The shortcomings lie in the stability of midfield blocking and the speed of passive defense transition. Compared with his opponents, Li Shifeng has outstanding technical and tactical comprehensiveness, but there is still room for improvement in extreme speed (such as flat drawing reaction).

4.2. Suggestions

Technical training: Strengthen the accuracy of midfield blocking, and control the error rate within 8% through specialized training; Improve the dribbling speed during passive defense and narrow the gap with top players.

Tactical optimization: Increase the proportion of backhand shots in the backcourt to 10% -15%, further breaking the opponent's receiving rhythm; Add more fake actions in front of the net in multi shot duels to enhance tactical suddenness.

Physical reserve: Targeted improvement of lower limb explosive power, shortening the time spent on the internet after a kill to less than 0.25 seconds, and enhancing continuous offensive ability.

Reserve cultivation: Drawing on its growth model of "comprehensive technical skills+psychological resilience", balance the cultivation of technical delicacy and tactical awareness in adolescent training.

References

[1] Yin Nao Technical and tactical analysis of excellent Chinese badminton male singles player Shi Yuqi [D]. Central China Normal University, 2018

[2] Wu Ling Analysis and Research on the Characteristics of Technical and Tactical Application of World Excellent Badminton Men's Singles Athletes [D]. Beijing Sport University, 2016

[3] Feng Shengchao Comparative Analysis of Technical and Tactical Characteristics of the Last Three Beats of World Elite Badminton Men's Singles Athletes [D]. Beijing Sport University, 2020

[4] Gao Xiaodong Analysis of the Technical Application Characteristics of World Excellent Badminton Player Taotian Xiandou [D]. Liaoning Normal University, 2021

[5] Zhao Xuegong The impact of the new competition system on men's singles badminton skills [J]. Contemporary Sports Technology, 2020, 10 (35): 199-201

[6] Ye Shengai Analysis of the Impact of the New Badminton Competition System on the Backcourt Techniques and Tactics of Men's Singles [J]. Sports, 2010, (06):11-131.