

A Technical Analysis of Forehand-side Attack Immediately after Pivot Attack Used by Chinese Elite Table Tennis Attacking Players (Summary)

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1. The Purpose of Study

The aim of this study is to analyze the technique of forehand-side attack immediately after pivot attack used by Chinese elite table tennis attacking players, to find out its key technique and to reveal the characteristics of its technical movement in order eventually to provide reference basis for training.

2. The Subject of Study

We analyzed the technique of forehand-side attack immediately after pivot attack used by eight Chinese former world table tennis champions (five men and three women). The technique of each of them was analyzed and studied respectively.

3. The Method of Study

The SMC-70GP micro-computer television image production system was mainly used to make quantitative analysis of technical movements.

4. Results and Analysis

1. For fast attacking players such as Li Furong, Jiang Jialiang, Chen Longcan and Geng Lijuan, immediately after finishing their pivot attack, they returned to original position by small step leaping, their body weight between the two feet. When they began their forehand-side attack, their body weight quickly shifted to the right foot. At this time, the angle of left leg knee joint was 140 degrees and the player extended the hand with the bat to the right to meet the ball with the included angle between upper arm and forearm in 135 degrees. Before the ball was struck, the left foot pushed off the ground and made a cross step in front of the body. The left foot landed to support the body with the knee joint in 145 degrees and the ball was hit at its high point. The angle of left leg knee joint was 115 degrees after the ball was hit. The bent knee in a large degree made it possible for the player to lower the body weight, to control balance and to buffer inertia caused by the body's gliding to the right.

2. For loop players such as Xi Enting, Guo Yaohua, Cao Yanhua and He Zhili, when finishing their pivot topspin drive and changing their position to the right, they moved widely to the right by quickly making a cross step in front of the body. Before the ball was struck, a bigger backswing of the bat was made with the included angle between

upper arm and forearm in 140 degrees. The ball was hit at its lowering period. In order to quickly reduce inertia caused by the body's rushing to the right, the left foot landed with the outside of the foot and the body turned left, close to the table with steadiness and ready for the next return.

5. Conclusions

1. By using micro-computer for analysis, we found that immediately after pivot attack, all the attacking players returned to original position by small step leaping and then they rushed to the right open space by cross step.
2. In order to organize the next attack, it is absolutely necessary to check the body movement and to overcome inertia caused by the body's rushing to the right for forehand-side attack.
3. The technique of forehand movement after pivot attack can be divided into three stages:
The first stage: The first stage is a starting stage, in which the left foot pushes off the ground and the cross step begins.
The second stage: In this stage, the left foot crosses over the right foot in front of the body to make a cross step and the bat touches the ball.
The third stage: In this stage, the body movement is checked and inertia is overcome.
4. Training for leg power must be strengthened with emphasis on starting, checking and returning to original position.