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Monitoring Chinese Table Tennis Players Physical Function Preparing for the Swedish World Table Tennis Championships

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Objective In this paper, five people of the national table tennis men's team are selected as the research objects, and the blood biochemical index of the athletes are measured and analyzed. To understand and master the current physical fatigue and physical function recovery of key athletes based on the test results, and provide reasonable training program and sports nutrition supplements advice for key athletes, so that athletes can achieve the best physical condition, improve training effect and performance.

Methods On April 10, 2018, at 7:15 in the morning, blood was collected from five main athletes in the fasting state, and blood biochemical analysis was performed to record athletes' white blood cell(WBC), hemachrome, blood urea nitrogen, creatine kinase(CK), testosterone/cortisol(T/C) and other biochemical index. And compared with the same period last year, to assess the physical performance of athletes.

Results 1: The white blood cell values of the five main athletes were within the normal range(4.0-11.0), and there was significant improvement compared with the same period of last year; the hemoglobin values of the five main athletes were relatively well within the normal reference range(110-170) and increased compared with the same period last year.

2: Analysis of blood urea nitrogen results showed that Wang Chuqin and Ma Long's blood urea nitrogen measurement value was higher than the normal value (4.0-7.0); compared with the same period of last year, Ma Long blood urea nitrogen value increased by 33.3%; other members blood urea nitrogen value was within the normal range and there was no significant change compared to the same period last year.

3: Analysis of creatine kinase results showed that the CK levels of Wang Chuqin, Xu Xin and Ma Long were higher than the normal values (50-310); compared with the same period of last year, the CK value increased by 263%. The CK value of Ma Long increased by 76.3%; other athletes CK value were in the normal range and stable.

4: Testosterone/Cortisol results showed that the T/C ratio of the five main athletes was >0.03 , which was in the normal range, and there was no significant change compared with the same period of last year.

Conclusions 1: The five main athletes have good immune function and are good for ensuring disease resistance before and during the game.

2: The aerobic metabolism level of the male member is relatively good, which is beneficial to the body's aerobic endurance level. And compared with the previous aerobic endurance test results, the male aerobics members' aerobic capacity is in a stable state.

3: The blood urea nitrogen is relatively low in the normal reference range, indicating that the athletes are more suitable for the current training load and intensity, and the body recovers well; Wang Chuqin and Ma Long have better adaptation to the current training intensity.

4: Some athletes have higher levels of CK. It is recommended to strengthen the positive recovery of muscle tension and relaxation after high-intensity training to better prevent muscle damage.

5: At present, the proteolysis and metabolism of the male member of the main is greater than of protein synthesis, and they five should increase the targeted supplement of dietary protein, vitamins and other nutritional supplements to improve testosterone levels.