



Research on Tapering to Elite Female Race Walking Players with Altitude Training Characteristics

Na Zhu¹, Qiang Tang¹, Xiuyun Li²

1. Jiangsu research Institute of Sports Science

2. Jiangsu Sports Management Center of Track and Field

Objective The ultimate goal of athletic training is to perform the optimum competitive states in the competitions. The research has shown that one of the key factors to achieve the goal is effective and appropriate Tapering in preparing period. By systematically and completely tracing and summarizing the Tapering in endurance events with altitude training at the entire training period which could provide a better guidance for the training and bring into an furthest effects, providing a real reference cases for achieving competitive targets and scientific training.

Methods Have Selected 20 players and 10 games from annual competitions (National Championships, the National Games, World Games, Olympic qualifiers etc.) from 2011 to 2017, which involved 9 players who are the international master athletes and 11 players who are the National master athletes with 4-10 years of training. According to entire preparing period schedule and training targets to analyze the intensity, volume and rhythm of training, recording the athletes whose Hb(hemoglobin) number in different circulatory sports and concluding the athlete's Tapering mode and effects.

Results 1. The systematical time of preparing for competition was 65 ± 5 days; 2. The entire training arrangements comprised of four stages: the plain training preparation phase, the altitude training phase, the plain training, pre-competition training phase; 3. Applied single peak and single cycle training model, the training structure was cycling 12 to 15 to 10 to 15 to 26kms, and the maximum training interval was 5-7 days after highest intensity training. 4. The tapering was engaged in the first week before the altitude training phase and 10-12days before competition; 5. The training load decreased 10-15%, the training intensity decreased by 25%-30% and the training volume was maintained to 90-105% during the first Tapering which mainly decrease training intensity; 6. During the second Tapering, the training load decreased by 40-60%, the training intensity was 90%-95% and at the key class, training intensity was more than 100% which mainly decrease training volume; 7. The training frequency was kept at 95-105% at two Tapering training phases; 8. Athletes' Hb number was maintained at 132.04 ± 6.53 IU. The whole adjustments varied with the Tapering training arrangements.

Conclusions 1. There were two Tapering training models with altitude training characteristics before the preparing competition period; 2. The one Tapering was decreasing training volume passively at the beginning of the altitude training, and the another Tapering was decreasing volume initiatively before the competition. 3. The first Tapering was to reduce the intensity of training, and the second Tapering was to reduce the volume of training; 4. The first Tapering is last 5 to 7days, and the second Tapering last 10 to 12days; 5. The entire preparing preformed as hyperbolic mode. The first tapering was the exponential tapering(slow decay), and the second tapering was the exponential tapering(fast decay); 6. The athletics' function capacity changes vary with the changes of Tapering. When the ability of adaption was quicker, the competitive states improved.