Tracking Research of Body Function Monitoring on Mountain Cyclists during Plain-Plateau-Lower Plateau Training

Ziyuan Guo
Anhui Institute of Physical Science and Technology

Objective To explore the functional changes of mountain bike athletes in the course of continuous training of six weeks plain, plateau and lower plateau, and to provide reference basis for coaches to choose plateau training, arrange plateau training and downhill time in a targeted way.

Methods The continuous tracking and monitoring of the 6 weeks plain, 6 weeks plateau and 6 weeks lower plateau training of the 8 Anhui mountain cycling team athletes were carried out, and some functional indicators (WBC, RBC, HCT, HB, BUN, CK, T, C, etc.) were analyzed.

Results (1) Six weeks of plain training, serum BUN, CK showed a significant increase in the 5th and 6th weeks (P<0.01), serum T reached the lowest level in the 3rd week (P<0.05), and reached a higher value in the 5th and 6th weeks. (2) Six weeks of plateau training, HB and HCT have been maintained at a high value, BUN has an upward trend, CK and C have a downward trend, and T has a gradual upward trend, with no significant differences (P>0.05). (3) Six weeks of training in the lower plateau, HB and HCT began to show a gradual downward trend from the first week, starting from the fourth week, BUN has a downward trend, CK has increased significantly, serum T has decreased, and the fourth week reaches the lowest value, the fifth week began to rebound.

Conclusions (1) Plain training can gradually improve the athlete’s ability to adapt to the training load and the level of function; (2) Plain training is easier to increase load strength than plateau training, and plateau training is easier to increase load than plain training. (3) Plain training and plateau training can all improve the athletes' HB, HCT, and T levels, but plateau training is more advanced than plain training; (4) HB, HCT, and T can be maintained at a higher level within 1 week of the Lower Plateau. From the second week, HB, HCT, and T show a gradual downward trend. In the third week, HB drops to the lowest value, and in the fourth week, T reaches the lowest value.

Proposal: (1) Mountain bike athletes can consider arranging 5-6 weeks of plain training before going to the plateau; (2) During plateau training, it is easy to cause BUN to rise. Coaches must plan the active recovery time of athletes; (3) Plateau training can improve the athletes’ functional level, but the time to participate in the competition in the lower plateau must be controlled within one week.