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EVALUATION OF THE PLACEBO EFFECT IN ELITE AND AMATEUR ATHLETES

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Introduction and objective

The placebo effect is extremely interesting for sports practice. The big question to be asked is can placebo be effectively as an ergogenic resource? The answer to this question is not so simple, because in general, in the surveys conducted the volunteers do not know if they are receiving placebo, or the ergogenic resource (caffeine, beta alanine, for example).
The objective of the present study was to test the placebo effect effectively. This was made possible by the research design. In this way the impact of the placebo effect could be effectively measured.
To this research be more applicable, elite athletes and recreational athletes were selected.

Methods and materials

22 athletes were selected for the experiment. Out of this total 16 recreational and 6 elite. The classification between elite and recreational was made based on performance in previous races, as well as the fact that the athlete competes professionally.
The test was performed on a cycle ergometer Biotec 2100 from CEFISE Biotecnologia, with the help of Ergometric 6.0 software.
The tests were performed in 2 days, with a 72-hour interval between one and the other. All tests were performed at the same time of the day. Volunteers were advised to avoid strenuous activities the day before the test and to try to maintain a similar routine, including nutritional considerations. Such care was taken to try to standardize to the maximum the conditioners of the performance in the test.
The load of the test was adjusted by the weight of the athlete in order to work with

the same load relative to the weight (watt / kg). The dosage of the load was made so that the test had a short duration. By the imposed load a maximum time of 12 minutes of activity was expected for the elite athletes. The load was kept fixed throughout the test and the test ended after exhaustion and voluntary request of the athlete.
During the evaluation, the heart rate was continuously measured and the subjective perception of effort (Borg scale) was measured minute by minute.
On the first day the athletes received 30 minutes before the test a supplement. This supplement was actually placebo. There was no ergogenic feature in the capsule, but they received the information that it was a new, very powerful supplement.
In the second encounter, the athlete dit the test without any capsule. He was informed that the goal was to compare how much the supplement, offered in the first encounter, would lead to a better performance.

Results

The results found in the present study were very interesting. Overall, in the supplement test (which was actually placebo) there was an average increase of 9.66% in performance, measured by a longer time to exhaustion. This result was obtained with all 22 athletes.
In the case of elite athletes, the result was lower, showing an increase of 4.39%, on average. In the case of amateur athletes, the increase was 22.87%.

Discussion

Analyzing the data in a global way it seems that there is a significant placebo effect detected in the present study. An average increase of 9.66% in the average is something very relevant.
The fact that the increased impact of the placebo effect was greater in amateur athletes seems quite reasonable and may be explained by their greater susceptibility to placebo. In the case of elite athletes, who are more accustomed to harder trials, in a greater effort, the impact of the placebo effect was smaller, but can be considered as important from a practical point of view, since a performance increase of 4.39% a professional athlete, seems to be something fantastic.

Conclusions

The present study showed that the placebo effect is important to be considered even in the case of elite athletes. The way the study was designed allowed a more reliable measurement of the real dimension of the placebo effect. Such information can be used in applied terms, to seek a better performance.

Informações sobre a íntegra desse trabalho podem ser obtidas no:

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