

18. Symptoms and Signs

Reference

Chun SY, Lee ES. The effects of the magnetic therapy treated on acupuncture point for recovery from fatigue with before and after exercise. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji (Journal of Oriental Rehabilitation Medicine)* 1998; 8(1): 158–70 (in Korean with English abstract).

1. Objectives

To evaluate the effect of treatment with magnetic field on fatigue-related physiological changes.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (details not mentioned), Republic of Korea.

4. Participants

Gymnastics students of K University (n=14).

5. Intervention

Arm 1: Magnetic treatment group (n=5). Magnetic treatment at the bilateral Zusanli (ST36, 足三里), Chengjin (UB56, 承筋), and Chengshan (UB57, 承山) acupuncture points.

Arm 2: Intradermal acupuncture treatment group (n=4). Intradermal acupuncture treatment at the bilateral Zusanli (ST36, 足三里), Chengjin (UB56, 承筋), and Chengshan (UB57, 承山) acupuncture points.

Arm 3: Non-magnetic treatment group (n=5). Moxa-pellet treatment at the bilateral Zusanli (ST36, 足三里), Chengjin (UB56, 承筋), and Chengshan (UB57, 承山) acupuncture points. A moxa-pellet is similar in appearance to a permanent magnet but has no magnetic field or needle.

6. Main outcome measures

Blood lactic acid concentration, change in heart rate, change in oxygen uptake, ventilation rate per minute, lactic acid concentration, and change in heart rate recovery at 15 minutes after exercise, reaction time to light stimulation before and after of maximal exercise.

7. Main results

- 1) The blood lactic acid concentration at maximal exercise was decreased in magnetic treatment group and intradermal acupuncture treatment group during convalescence, and was significantly different from that in the other group.
- 2) The heart rate at maximal exercise was decreased in magnetic treatment group and intradermal acupuncture treatment group, but remained unchanged during every period of exercise in the non-magnetic treatment group. The difference in heart rate was significant among groups.
- 3) Among the groups, the intradermal acupuncture treatment group showed higher oxygen uptake.
- 4) Lactic acid concentration and heart recovery rate at the end of 15 minutes of convalescence after maximal exercise improved in the magnetic treatment group and intradermal acupuncture treatment group but not in the non-magnetic treatment group, which showed a tendency toward less improvement.

8. Conclusions

Magnetic treatment significantly improves recovery from fatigue-related change.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This article described how magnetic fields can be used to reduce physiological changes related to fatigue. This method could be applied in parallel with other therapies.

11. Abstractor

Cho SH, 13 July 2010.