

5. Psychiatric/Behavioral Disorders

Reference

Sawada T, Sawada C, Fukuda F, et al. Effect of TEAS (Transcutaneous Electrical Acupuncture Point Stimulation) on intellect and daily activity of the aged. *Zen Nihon Shinkyu Gakkai Zasshi (Journal of the Japan Society of Acupuncture and Moxibustion)* 2001; 51(1): 69–80 (in Japanese with English abstract). Ichushi Web ID: 2001181197

1. Objectives

To evaluate the effect of transcutaneous electrical acupuncture point stimulation (TEAS) on decreased intellectual function and activities of daily living in the elderly.

2. Design

Randomized controlled trial using sealed envelopes for allocation (RCT-envelope).

3. Setting

Nishikyoto Hospital, Kyoto, Japan.

4. Participants

One hundred and five elderly inpatients aged 70 years or older; those with sequelae of stroke were excluded.

5. Intervention

Arm 1: Exercise therapy + TEAS combination group. In addition to exercise therapy, electrical stimulation was applied to the left and right LI4 (合谷) – LI10 (手三里) acupuncture points at a frequency of 2 Hz for 15 minutes, 3 times a week for 8 weeks (n=49).

Arm 2: Exercise therapy alone group (n=44).

Of 105 patients, 12 discharged after the start of the study were excluded from the analysis.

6. Main outcome measures

Revised version of Hasegawa Dementia Scale (HDS-R) and Dementia Behavior Disturbance Scale (DBD Scale).

Both scales were evaluated before and 4 and 8 weeks after the start of TEAS treatment.

7. Main results

HDS-R score and DBD Scale score were significantly improved by 4 and 8 weeks after the start of the intervention in both arms ($P<0.001$), but there was no significant between-arm difference. Subgroup analysis according to the pre-intervention HDS-R score or DBD Scale score revealed no significant difference.

8. Conclusions

Exercise therapy improves intellectual and daily living functions in the elderly and the addition of TEAS treatment enhances this improvement.

9. From acupuncture and moxibustion medicine perspective

The authors mentioned that increased cerebral blood flow may be the mechanism underlying the treatment effect of TEAS.

10. Safety assessment in the article

None.

11. Abstractor's comments

This valuable study determined how the addition of TEAS to the usual physical therapy could contribute to the improvement of intellectual and daily living functions in elderly inpatients. It is also appreciated that not only participants were stratified based on the HDS-R score, but also detailed analysis was accomplished by the stratification of patients according to the HDS-R score in addition to performing between-arm comparisons.

Although the authors concluded that TEAS improves intellectual and daily living functions in the elderly, the results showed improvement when pre- and post-intervention scores were compared within the each arm, but not when the combination was compared with physical therapy alone (between-arm comparison). In general, the post-intervention condition is affected by many factors besides the intervention itself. For example, spontaneous resolution or patient-specific fluctuation of symptoms may occur. In addition, various environmental factors and concomitant drugs may affect the condition. Therefore, the result of before-and-after comparison possibly involves some bias, and so further validation is needed.

12. Abstractor and date

Wakayama I, 9 September 2011.