6. Nervous System Diseases

Reference

Kwon NH, Shin YJ, Kim CY, et al. Comparative clinical study between Oriental medical and Oriental-Western medical treatment on Bell's palsy. *Daehan-Chimgu-Hakhoeji* (*Journal of Korean Acupuncture & Moxibustion Society*) 2008; 25(3): 19–28 (in Korean with English abstract).

1. Objectives

To compare the effectiveness of Bell's palsy treatment with Oriental medicines only to that of combined treatment with Oriental and Western medicines.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Hospital at Gangdong), Republic of Korea.

4. Participants

Thirty patients with Bell's palsy diagnosed by an otolaryngologist.

5. Intervention

Arm 1: Oriental medical treatments (acupuncture, herbal medicine, physiotherapy) only (n=15).

Arm 2: Oriental and Western medical treatments (acupuncture, herbal medicine, physiotherapy + [steroids]) combined (n=15).

6. Main outcome measures

House-Brackmann grade (H-B grade).

7. Main results

1) Treatment significantly improved outcome (H-B grade) during the interval between pre-treatment and 4 weeks after treatment in both arms (P=0.000).
2) The improvement in H-B grade was greater in Arm 1 than in Arm 2 after 1 week, similar in both arms after 2 weeks, and greater in Arm 2 than in Arm 1 after 3 and 4 weeks. There was no statistical significant between-arm difference in outcome after 4 weeks (1.73 ± 0.88 [Arm 1] *vs.* 1.93 ± 0.80 [Arm 2]; P=0.436).

8. Conclusions

Oriental-Western medical co-treatment compared to Oriental medical treatment only has greater impact on long-term treatment outcome, but the between-treatment difference is without statistical significance.

9. Safety assessment in the article

Not mentioned

10. Abstractor's comments

This study compares the effectiveness of Oriental medical treatment with Oriental-Western medical co-treatment for Bell's palsy. Recently, many Oriental-Western medical co-treatments have been tried, prompting a comparison of their effectiveness. In previous studies (Kang MJ. A clinical study comparing Oriental medicine with Oriental-Western medicine treatment for facial nerve paralysis, *Daehan-Chimgu-Hakhoeji* [*Journal of Korean Acupuncture & Moxibustion Society*] 2000; 17(1): 55–66; Kim NH. A clinical study comparing Oriental medicine with Oriental-Western medicine treatment for Bell's palsy. *Journal of Korean Acupuncture & Moxibustion Society* 2001; 18(5): 99–108), it was reported that the Oriental medical treatment only was more effective than Oriental-Western co-treatment in improving outcome. This result is in contrast with the results of this study, but the treatment period was three weeks in the previous study and four weeks in this study. Although the present study concluded that Oriental-Western co-treatment had a better therapeutic effect, four weeks is too short to determine the therapeutic effect on Bell's palsy, and more than two months of follow up are needed to determine the final recovery rate and presence of sequelae. To determine treatment effect, incomplete paralysis needs to be differentiated from complete paralysis more precisely. Since improvement may depend on the periodicity of steroid cycles, a comparative study that takes this factor into account is needed.

11. Abstractor

Lee EJ, 26 May 2010.

6. Nervous System Diseases

Reference

Lim JA, Kim SC, Kim SN, et al. Treatment of carpal tunnel syndrome using Scolopendrid herbal acupuncture. *Daehan-Yakchim-Hakhoeji* (*Journal of Pharmacopuncture*) 2005; 8(1): 13–20 (in Korean with English abstract).

1. Objectives

To evaluate the efficacy of Scolopendrid herbal acupuncture in the treatment of carpal tunnel syndrome.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Oriental Medical hospital at Gwangju, Wonkwang University), Republic of Korea.

4. Participants

Forty patients who visited the hospital with hand pain or tingling, and night pain. All were positive for Tinel's and Phalen's signs. (The subjects were allowed to receive treatment from another hospital in addition to the trial treatment.)

5. Intervention

Arm 1: Traditional Korean medicine treatment (drugs, electro-acupuncture, acupuncture, physiotherapy) group (n=20).

Arm 2: Traditional Korean medicine treatment plus Scolopendrid herbal acupuncture treatment group (n=20).

6. Main outcome measures

Patient satisfaction rated on a visual analogue scale.

Excellent: Nearly normal recovery both subjectively and objectively. Over 70% improvement.

Good: Improvement in everyday life, with slight impairment of physical activity and discomfort remaining at the affected site. About 50–70% improvement.

Fair: Symptoms not significantly improved. Physical activity impaired and strenuous exercise impossible to do. Less than 50% improvement.

Poor: No improvement or worsening of the symptoms. Less than 20% improvement.

7. Main results

1) The improvement in the symptoms of carpal tunnel syndrome was greater in Arm 2 (95% improvement) than in Arm 1 (75% improvement).
2) In patients with thenar muscle atrophy requiring surgery, pain disappeared completely after combined treatment.
3) The efficacy of treatment for carpal tunnel syndrome was greater in Arm 2 (excellent 9 [45%] *vs.* 6 [30%], good 10 [50%] *vs.* 9 [45%], fair 1 [5%] *vs.* 4 [20%], poor 0 [0%] *vs.* 1 [5%]).

8. Conclusions

Treatment efficacy for carpal tunnel syndrome is significantly improved by combined treatment.

9. Safety assessment in the article

Not evaluated. The directions for Scolopendrid herbal acupuncture needle insertion are mentioned.

10. Abstractor's comments

This report is the first to evaluate the efficacy of Scolopendrid herbal acupuncture for treatment of carpal tunnel syndrome. Among the outpatients who visited to the hospital with hand pain or tingling, and night pain, forty patients with Tinel's and Phalen's signs were enrolled and were allowed treatment from another hospital in addition to the trial treatment. The limitation of this study was that the trial was not long enough to permit sufficient evaluation. Carpal tunnel syndrome recurs readily with overuse of the wrist. Follow up of 1–6 months is needed for sufficient evaluation. (There was no statistical analysis of the efficacy of treatment, and the treatment periods and frequency were not mentioned. The effect of other treatments could dilute the effects of the trial treatments.)

11. Abstractor

Lee EJ, 26 May 2010.

7. Eye Diseases

Reference

Kim MB, Kim KK, Hong SH, et al. The clinical tests for treatment improvement comparison in Myopia between eye acupuncture massage machine (NURIEYE-1) and acupuncture.*Daehan-Hanbang-AnIbiinhupibugwa-Hakhoeji* (*Journal of Korean Oriental Medical Ophthalmology Otolaryngology Dermatology*) 2009; 22(3): 80–94 (in Korean with English abstract).

1. Objectives

To compare the efficacy of the eye acupuncture point massage with that of acupuncture in the treatment of myopic eyes.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriential hospital (Oriental Medicine Hospital of Dongeui Universtiy), Republic of Korea.

4. Participants

Thirty-two patients (age, more than 7 years) with the low-level myopia under -3 diopters and pseudo-myopia.

5. Intervention

Acupuncture was applied at the following acupuncture points: Zanzhu (UB2, 攢竹), Yangbai (GB14, 陽白), Sizhukong (TE23, 絲竹空), Tongziliao (GB1, 瞳子髎), Chengqi (ST1, 承泣), Hegu (LI4, 合谷), and Guangming (GB37, 光明). Eye acupuncture point massage was applied to the areas surrounding the eye.

Arm 1: Self-massage group (n=16). Eye massage using an eye acupuncture point massage machine, twice a day for 15 minutes over an 8-week period.

Arm 2: Acupuncture treatment group (n=16). Twice a week for 8 weeks.

One subject dropped out.

6. Main outcome measures

Visual acuity score, score on the McGill Quality of Life (MQOL) Questionnaire for Myopia, and skin temperature around eye area measured by Digital Infrared Thermal Imaging (DITI).

7. Main results

There was no significant between-group difference in average visual acuity, MQOL, and DITI scores before and after treatment, but both treatments significantly improved visual acuity, MQOL, and DITI scores.

8. Conclusions

The effectiveness of self massage using the eye acupuncture point massage machine and that of acupuncture treatment are similar.

9. Safety assessment in the article

One child dropped out because of dizziness due to vibration during the massage.

10. Abstractor's comments

In traditional Korean medicine, myopia (eyes lose their luster) is thought to be caused by insufficient heart-yang (心陽) and by damage to Ki-blood (氣血) from too much reading.

It was understood prior to the start of this study that acupuncture is effective for myopia. This clinical trial evaluated whether the eye acupuncture point massage machine could replace acupuncture treatment for myopia. Though the efficacies of the acupuncture point massage machine and acupuncture were similar, it was concluded that use of this machine for myopia treatment was more efficient inasmuch as it was less time-consuming than acupuncture treatment.

11. Abstractor

Nam HJ, 10 June 2010.

9. Cardiovascular Diseases

Reference

Yin CS, Seo BK, Park HJ, et al. Acupuncture, a promising adjunctive therapy for essential hypertension: a double-blind, randomized, controlled trial. *Neurological Research* 2007; 29(suppl 1): s98–103.

1. Objectives

To assess the efficacy of acupuncture as an adjunctive treatment for hypertension.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriential hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Patients with hypertension or prehypertension (systolic blood pressure, 120 mmHg; diastolic blood pressure, over 80 mmHg; n=41).

5. Intervention

Arm 1: Acupuncture administered to: 1) Zusanli (ST36, 足三里) Quchi (LI11, 曲池) Dachangshu (BL25, 大腸俞); 2) Taibai (SP3, 太白), Taiyuan (LU9, 太淵) Feishu (BL13, 肺俞); 3) Shangqu (KI17, 商曲), Dahe (KI12, 大赫) Guanyuan (CV4, 関元); 4) Shangyang (LI1, 商陽), Dazhui (GV14, 大椎), Fengchi (GB20, 風池) acupuncture points (n=21).

Arm 2: Park's sham acupuncture administered (n=20).

Seventeen treatments during eight weeks.

Eleven patients dropped out (6 in Arm 1; 5 in Arm 2).

6. Main outcome measures

Blood pressure measurement after 4 weeks and 8 weeks of treatment.

7. Main results

Although 8 weeks of treatment produced no significant between-group differences in blood pressure, blood pressure was significantly decreased from 136.8/83.7 to 122.1/76.8 after 8 weeks of treatment in Arm 1 (P <0.001).

8. Conclusions

Acupuncture has an antihypertensive effect.

9. Safety assessment in the article

Spot-bleeding occurred in 5% of the subjects in Arm 1.

10. Abstractor's comments

Sa-am acupuncture principles (a distinctive feature of the Korean Oriental medicine) was used to select the acupuncture points. Treatment for 8 weeks significantly decreased blood pressure. Additional study and a large scale clinical trial are needed.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Bae HS, Shin AS, Park SU, et al. Effects of acupuncture at ST36 on blood pressure and endothelial dependent vasodilation in hypertensive patients. *Daehan-Hanbang-Naegwa-Hakhoeji* (*Korean Journal of Oriental Internal Medicine*) 2008; 29(3): 657–65 (in Korean with English abstract).

1. Objectives

To assess the effects of acupuncture at the Zusanli (ST 36, 足三里) acupuncture point on blood pressure and endothelial dependent vasodilation.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Hospital at Gangdong), Republic of Korea.

4. Participants

Twenty-four male and female patients (age, 18–70 years) who were diagnosed as having essential hypertension and receiving antihypertensive treatment.

5. Intervention

Arm 1: Acupuncture treatment at the Zusanli (ST36, 足三里) acupuncture point (n=12).
Arm 2: Sham acupuncture treatment group (n=12).

6. Main outcome measures

% Flow-mediated dilation (FMD), hemodynamometry.

7. Main results

There was no significant between-group difference in blood pressure. FMD increased significantly from 9.5±2.0% to 11.1±2.2% after acupuncture at the Zusanli (ST36, 足三里) acupuncture point, but remained unchanged (9.2±2.9% to 9.8±2.3; P =0.091) after control treatment.

8. Conclusions

Acupuncture at the Zusanli (ST36, 足三里) acupuncture point may improve endothelial cell dysfunction.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

Previous studies have suggested that acupuncture or moxibustion at the Zusanli acupuncture point is antihypertensive. Blood pressure was not changed by acupuncture treatment at the Zusanli. Thus, the subjects of the study took antihypertensive medication and their average blood pressures were low (132.6±13.6 mmHg in treatment group and 129.2±17.1 mmHg in control group). However, this study found that acupuncture at the Zusanli acupuncture point significantly increased the FMD and improved endothelial cell dysfunction. An additional study with more cases and hospitals are needed.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Kim BS, Jang IS, Yeo JJ, et al. Effect of Choksamni (足三里, ST36) moxibustion on blood pressure elevation in hypertensive patients: A randomized controlled trial. *Daehan-Hanui-Hakhoeji* (*Journal of Korean Oriental Medical Society*) 2005; 26(3): 66–73 (in Korean with English abstract).

1. Objectives

To evaluate the effect of Zusanli (ST 36, 足三里) moxibustion on blood pressure elevation in hypertensive patients.

2. Design

Randomized controlled trial (RCT).

3. Setting

One oriental hospital (Oriental Medical Hospital at Jeonju, Woosuk University), Republic of Korea.

4. Participants

Patients with abrupt systolic blood pressure elevation over 160 mmHg (n=61).

5. Intervention

Arm 1: Zusanli (ST 36, 足三里) moxibustion treatment (n=30).

Arm 2: Bed rest only (n=31).

6. Main outcome measures

Blood pressure measured at four times (30, 60, 90, and 120 minutes) after the intervention.

7. Main results

1) The systolic bloodpressure in Arm 1, relative to Arm 2, showed significant decrease at 60, 90, and 120 minutes (*P*: <0.01, <0.001, and <0.001, respectively). Although the decrease in systolic blood pressure at 30 minutes was greater in Arm 2 than in Arm 1 (-10.0±8.56 mmHg *vs.* -8.33±8.34 mmHg), the between-group difference was not significant.

2) The diastolic blood pressure in Arm 1 (relative to Arm 2) was significantly decreased at 120 minutes ($P<0.05$).

8. Conclusions

Zusanli moxibustion treatment can significantly reduce blood pressure elevation.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

The focus of many previous studies on Zusanli acupuncture point was its effects on the early symptoms of apoplexy, control of pain, and gastrointestinal diseases, but not its circulatory effects including a blood pressure lowering effect without change in heart beat. This study is on the lowering of abrupt blood pressure elevation by moxibustion on-Zusanli acupuncture point. The decrease in blood pressure as well as the relief of headache, vertigo, and nausea persisted at least 2 hours. But as the observation period was short and number of subjects were small, there is a need for additional studies.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Lee CR, Lee SH, Rhee JW, et al. The effect of Korean, Chinese and American ginseng on blood pressure of hypertensive patients. *Daehan-Hanui-Hakhoeji* (*Journal of Korean Oriental Medical Society*) 2005; 26(3): 228–38 (in Korean with English abstract).

1. Objectives

To evaluate the effect of ginseng on the blood pressure in hypertensive patients.

2. Design

Double-blinded randomized controlled trial (DB-RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Subjects with prehypertension and stage 1 hypertension diagnosed using 24-hour ambulatory blood pressure monitoring (n=123).

5. Intervention

Arm 1: Korean ginseng treatment (n=22).
Arm 2: Chinese ginseng treatment (n=25).
Arm 3: American ginseng treatment (n=24).
Arm 4: Korean red ginseng treatment (n=25).
Ginseng was administered in capsules, and the treatment was for 4 weeks, 3 times a day, 4 capsules per dose.
Twenty seven subjects dropped out during the study.

6. Main outcome measures

Ambulatory blood pressure measured over a 24-hour period.
Symptoms related to the hypertension (headache, nuchal pain, and hot flush) assessed on a visual analogue scale.

7. Main results

1) Treatment significantly decreased systolic blood pressure in Arm 2 ($P<0.05$) and diastolic blood pressure in Arm 1 ($P<0.05$), but there were no between-group differences in pre- to post-treatment change in blood pressure.
2) Blood pressure variability and average real variability in diastolic blood pressure decreased significantly in Arm 2.
3) The above symptoms related to hypertension decreased signficantly in all subjects (P for headache or hot flush, headache, and hot flush: <0.001, <0.001, 0.043, respectively), especially in Arm 1.

8. Conclusions

All the ginsengs significantly decrease blood pressure and hypertension-related symptoms, but no ginseng is more effective than the others.

9. Safety assessment in the article

There were no abnormal laboratory findings (liver and renal function tests) and no adverse effects of treatment.

10. Abstractor's comments

Ginseng is thought to increase metabolic rate, but symptoms such as headache, nuchal pain, and hot flush were significantly decreased in this study. Treatment decreased blood pressure regardless of the kind of ginseng, and there were no significant between-group differences. The hypertension was not 'cured' in the short term, so that additional analysis and further large-scale clinical trials will be needed.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Chung KH, Roh JH, Kim LD, et al. The effects of Samhwangsasim-tang extracts on ambulatory blood pressure in mild hypertensive patients with stroke. *Daehan-Hanbang-Seonginbyeong-Hakhoeji* (*Journal of Korean Oriental Chronic Disease*) 2002; 8(1): 41–52 (in Korean with English abstract).

1. Objectives

To evaluate the effect of Sam-Hwang-Sa-Sim-Tang (三黃瀉心湯) on mild hypertension.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Hospitalized patients with mild hypertension (systolic blood pressure, 140~149 mmHg, or diastolic blood pressure, 90~99 mmHg: n=37).

5. Intervention

Arm 1: Conventional Korean Oriental medicine + Sam-Hwang-Sa-Sim-Tang (三黃瀉心湯) treatment (n=19).

Arm 2: Conventional Korean Oriental medicine only (n=18).

6. Main outcome measures

Blood pressure as measured by 24-h ambulatory blood pressure monitoring.

7. Main results

The change in blood pressure a week after treatment in Arm 1 and Arm 2 was –10.4 mmHg and 3.72 mmHg, respectively (P<0.05). The change in blood pressure after 2 weeks of treatment in Arm 1 and Arm 2 was –16.0 mmHg and –3.83 mmHg, respectively (P<0.05). Systolic blood pressure was significantly more decreased in Arm 1 after 1 and 2 weeks than in Arm 2, but there were no between-group differences in diastolic blood pressure.

8. Conclusions

Sam-Hwang-Sa-Sim-Tang treatment has efficacy in the treatment of mild hypertension.

9. Safety assessment in the article

The levels of aspartate aminotransferase (AST), alanine aminotransferase (ALT), blood urea nitrogen (BUN), creatinine, and electrolytes were within the normal range. One subject in the Sam-Hwang-Sa-Sim-Tang treatment group complained of mild abdominal pain, but there was no clear association with treatment.

10. Abstractor's comments

The Sam-Hwang-Sa-Sim-Tang obtained from *Jinguiyaolue* (金匱要略, *the Synopsis of prescriptions of the Golden Chamber*) was previously shown to have antihypertensive, anti-hypercholesterolemic, and antioxidative effects. Before prescribing a new drug or increasing the dose of an already prescribed Western drug for mild hypertension in stroke patients, Sam-Hwang-Sa-Sim-Tang should be tried. But insofar as only 37 cases were included in this trial, an additional clinical trial is needed.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Yun SP, Jung WS, Park SU, et al. Anti-hypertensive effect of Chunghyul-dan (Qingxue-dan) on stroke patients with essential hypertension. *American Journal of Chinese Medicine* 2005; 33(3): 357–64.

1. Objectives

To evaluate the anti-hypertensive effect of Chunghyul-dan (Qingxue-dan, 清血丹) on stroke patients with essential hypertension.

2. Design

Double-blinded randomized controlled trial (DB-RCT).

3. Setting

One Oriential hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

The patients with stage 1 hypertension (classified by JNC 7 hypertension guidelines) at 10 days after onset (n=40).

5. Intervention

Arm 1: Conservative therapy + 1200 mg of Chunghyul-dan (Qingxue-dan, 清血丹) treatment for 14 days (n=22).

Arm 2: Conservative therapy only (n=18).

Twelve subjects dropped out during the study (7 in Arm 1, 5 in Arm 2).

6. Main outcome measures

Blood pressure measurement.

7. Main results

Systolic blood pressure (141.4±8.96 mmHg→132.9±9.46 mmHg) was significantly decreased by treatment in Arm 1 compared to that in Arm 2 (P=0.03). But there was no significant between-group differences in diastolic blood pressure and pulse rate.

8. Conclusions

Chunghyul-dan treatment appears to be effective for stage 1 hypertension in patients with stroke.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

Chunghyul-dan treatment was effective for stage 1 hypertension in patients with stroke and had no particular adverse effect, so its use can be recommended. But inasmuch as 30% of subjects dropped out, and no control drug was used, a large scale and long term follow-up study is needed.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Lee SH, Kim EJ, Kim LD, et al. The effect of intradermal acupuncture on the patients with the insomnia after stroke. *Daehan-Hanbang-Naegwa-Hakhoeji* (*Korean Journal of Oriental Internal Medicine*) 2004; 25(1): 136–46 (in Korean with English abstract).

1. Objectives

To evaluate the efficacy of intradermal acupuncture for insomnia after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

KyungHee Oriental Hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

The patients were hospitalized between November 2002 to July 2003, diagnosed as having cerebral infarction and cerebral hemorrhage, and insomnia reflected by an Insomnia Severity Index (ISI) >15 for 3 consecutive days (n=30).

5. Intervention

Arm 1: Intradermal acupuncture treatment at the Shenmen (HT7, 神門) and Neiguan (PC6, 內關) acupoints (n=15).

Arm 2: Control group. Needle attached but not inserted at the Shenmen (HT7, 神門) and Neiguan (PC6, 內關) acupuncture points (n=15).

Two subjects dropped out during the study.

6. Main outcome measures

Score on Morning Questionnaire (MQ), ISI, and Athens Insomnia Scale (AIS).

7. Main results

1) ISI and AIS scores on total sleep time, sleep quality, condition on waking, ability to concentrate, and sleepness in the morning were significantly improved in Arm 1 compared to Arm 2.
2) In treatment group, non-responders complained of nausea, halitosis, belching, and acid regurgitation, and abundant expectoration, while responders complained of palpitation, oppressive feeling in the chest, and somniphobia (fear of sleep).

8. Conclusions

The intradermal acupuncture treatment at the Shenmen and Neiguan acupuncture points can be used to treat insomnia in patients with stroke.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluated intradermal acupuncture treatment at the Shenmen (HT7, 神門) and Neiguan (PC6, 內關) acupuncture points for insomnia in 30 patients after stroke who were diagnosed as having cerebral infarction, cerebral hemorrhage, and insomnia (ISI over 15) for 3 consecutive days. In conclusion, total sleep time, sleep quality, etc. were significantly improved in Arm 1 compared with Arm 2. The results suggest that this treatment can be used for insomnia after stroke.

11. Abstractor

Cho SH, 13 July 2010.

9. Cardiovascular Diseases

Reference

Lee SY, Baek YH, Park SU,et al. Intradermal acupuncture on Shen-Men and Nei-Kuan acupoints improves insomnia in stroke patients by reducing the sympathetic nervous activity: a randomized clinical trial. *American Journal of Chinese Medicine* 2009; 37(6): 1013–21.

1. Objectives

To evaluate the effectiveness of the intradermal acupuncture at the Shenmen (HT7, 神門) and Neiguan (PC6, 內關) acupuncture points for insomnia.

2. Design

Randomized controlled trial (RCT).

3. Setting

KyungHee Oriental Hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Patients were hospitalized between November 2007 and August 2008, diagnosed as having cerebral infarction and cerebral hemorrhage, and insomnia reflected by Insomnia Severity Index (ISI) >15 for 3 consecutive days (n=52).

5. Intervention

Arm 1: Intradermal acupuncture treatment at the Shenmen (HT7, 神門) and Neiguan (PC6, 內關) acupuncture points (n=27).

Arm 2: Control group. Accupuncture needle attached but not inserted at the Shenmen (HT7, 神門) and Neiguan (PC6, 內關) acupuncture points (n=25).

6. Main outcome measures

Score on ISI, Athens Insomnia Scale (AIS).

7. Main results

ISI and AIS scores were significantly increased in Arm 1 compared to Arm 2. In addition, night hypertension and heart rate variability (LF/HF ratio) were significantly decreased.

8. Conclusions

The sympathetic nerve activity was stabilized in Arm 1. Therefore, intradermal acupuncture treatment at the Shenmen and Neiguan acupuncture points is effective for insomnia after stroke.

9. Safety assessment in the article

The blood pressure and heart rate variability were checked.

10. Abstractor's comments

This study examined the effectiveness of intradermal acupuncture for insomnia after stroke. Fifty-two patients previously diagnosed as having cerebral infarction and cerebral hemorrhage, and insomnia (ISI >15) for 3 consecutive days were allocated to Arm 1 or Arm 2. Treatment decreased night hypertension and heart rate variability but increased ISI and AIS scores, suggesting that it can be used for insomnia after stroke.

11. Abstractor

Cho SH, 13 July 2010.

9. Cardiovascular Diseases

Reference

Kim JY, Jung SM, Park CK, et al. The clinical effectiveness of acupuncture at Palsa (BaXie) for hand function in hemiparetic patients after stroke. *Daehan-Chimgu-Hakhoeji* (*Journal of Korean Acupuncture & Moxibustion Society*) 2008; 25(2): 97–104 (in Korean with English abstract).

1. Objectives

To evaluate the effectiveness of acupuncture at the Palsa (EX-UE9, 八邪) acupuncture point for hand function recovery in hemiparetic patients after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Jungwha Korean Medical Hospital), Republic of Korea.

4. Participants

Stroke patients with hemiparesis more than 8 days from onset (n=62).

5. Intervention

Arm 1: Conservative therapy + acupuncture at the Palsa (EX-UE9, 八邪) acupuncture point (given twice a day for 9 days, 15 minutes per round, 19 rounds in total; n=31).

Arm 2: Conservative therapy only (n=31).

6. Main outcome measures

Change in strength of carpal joint muscles, Fugl-Meyer motor scale, and Motricity Index.

7. Main results

1) There were no significant between-group differences in strength change of the carpal joint muscles.
2) There was significant between-group differences in the change in grasping power (6.45±3.71 in Arm 1 *vs.* 4.58±2.91 in Arm 2, P=0.046).
3) There was no significant between-group difference in Motricity Index.
4) There was significant improvement in Fugl-Meyer motor scale score in Arm 1 (4.61±1.65 *vs.* 3.58±1.91 in Arm 2, P=0.004).

8. Conclusions

Acupuncture at Baxie acupuncture point is effective for recovering grasping power and hand function in hemiparetic patients after stroke.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluated the effectiveness of acupuncture at the Baxie acupuncture point for hand function recovery. Stimulation of the Palsa acupuncture point strongly balances Ki and blood (氣血) flow, removes obstruction in meridians and collaterals (通經活絡), and alleviates pain (止痛). Thus, it is frequently used for treating arthralgia syndrome or blockage syndrome. Although improvements in grasping power and hand function after acupuncture treatment at the Baxie acupuncture point were observed, the study had no sham acupuncture control group, only a small number of patients, and a short observation period, suggesting the need for additional clinical trials.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Kim MB, Shin HD, Kim SS. The influence of electroacupuncture interosseous muscle for hand function in hemiplegic patients after stroke. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji* (*Journal of Oriental Rehabilitation Medicine*) 2005; 15(4): 17–28 (in Korean with English abstract).

1. Objectives

To evaluate the effectiveness of electroacupuncture for hand function recovery in hemiplegic patients after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Patients with stroke onset of more than 4 weeks and muscle strength with Medical Research Council (MRC) score of less than 4 (n=10).

5. Intervention

Arm 1: Conservative therapy + electroacupuncture treatment (6 rounds per week, 20 minutes per round, 2 Hz electroacupuncture at the Hegu (LI 4, 合谷), Zhongzhu (TE3, 中渚), and Palsa (EX-UE9, 八邪) acupuncture points (n=5).

Arm 2: Conservative therapy only (n=5).

6. Main outcome measures

Measurement of strength of the carpal joint muscles using MRC score.

Scores on the Jebsen-Taylor Hand function test, Action Research Arm test, and modified Barthel Index. Grasping power measured using a squeeze bulb dynamometer.

7. Main results

1) The muscle strength at the carpal joint was significantly improved in Arm 1 compared to Arm 2 (P=0.016).
2) There was a significant increase in grasping power and in score on the Action Research Arm test in Arm 1 compared to Arm 2 (P=0.032) but no significant between-group difference in score on the Jebsen-Taylor hand function test (P=0.310).
3) There was no significant between-group difference in daily life (assessed by modified Barthel Index).

8. Conclusions

Electroacupuncture is effective for recovering muscle strength at the carpal joint, grasping power, and hand function.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluates the effectiveness of electroacupuncture for impaired hand function due to stroke. Muscle strength at the carpal joint, grasping power, and hand function recovery were observed in response to treatment. However, the study had limitations such as small patient numbers and short study period, suggesting the need for additional clinical trials.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Ryu HJ, Kim SS. Effect of electroacupuncture by different insertion method on upper limb function in post stroke patients with hemiplegia. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji* (*Journal of Oriental Rehabilitation Medicine*) 2006; 16(1): 49–61 (in Korean with English abstract).

1. Objectives

To evaluate the effect of electroacupuncture on upper extremity function in hemiplegic patients after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Partcipants

Stroke patients with hemiplegia more than 2 weeks after onset and stable vital signs (n=28).

5. Intervention

Electroacupuncture was administered for 20 minutes per round, 6 rounds per week for 4 weeks.

Arm 1: Conservative therapy + electroacupuncture applied to the Quchi (LI11, 曲池)- Shousanli (LI10, 手三里) and Jianyu (LI15, 肩髃)- Naoshu (SI10, 臑俞) acupuncture points, with oblique insertion 3 cm deep (not into the muscle) (n=13).

Arm 2: Conservative therapy + electroacupuncture applied to the Quchi (LI11, 曲池)- Shousanli (LI10, 手三里) and Jianyu (LI15, 肩髃)- Naoshu (SI10, 臑俞) acupuncture points with vertical insertion 3 cm deep (into the muscle) (n=15).

6. Main outcome measures

Upper extremity muscle strength evaluation, Fugl-Meyer score, and Modified Barthel Index (MBI).

7. Main results

1) There was no between-group difference in muscle strength at the shoulder and elbow joints before and after treatment, but there was a tendency toward increased strength in Arm 1.
2) Fugl-Meyer score was significantly higher in Arm 1 than in Arm 2 (P=0.043).
3) The between-group difference in MBI was not significant.

8. Conclusions

Electroacupuncture may help restore upper extremity function in hemiplegic patients after stroke. Oblique acupuncture (stimulation of the fascia) is more effective than vertical acupuncture (stimulation of the muscle).

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study compared the effectiveness of oblique electroacupuncture with vertical electroacupuncture (two variations of the method differing only in needle insertion orientation). Additional studies with more patients and for longer periods are needed.

11. Abstractor and date

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Kim YS, Hong JW, Na BJ, et al. The effect of low *vs.* high frequency electrical acupuncture point stimulation on motor recovery after ischemic stroke by motor evoked potentials study. *American Journal of Chinese Medicine* 2008; 36(1): 45–54.

1. Objectives

To evaluate the effect of high and low frequency electroacupuncture on dyspraxia in hemipletic patients after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Patients with cerebral infarction and hemiplegia, hospitalized from 1 week to 1 month after onset (n=62).

5. Intervention

Electroacupuncture applied to the Hegu (LI4, 合谷), Quchi (LI11, 曲池), Shousanli (LI10, 手三里), Waiguan (TE5, 外關), Zusanli (ST36, 足三里), Shangjuxu (ST37, 上巨虛), Xuanzhong (GB39, 懸鐘), and Taichong (LR3, 太冲) acupuncture points.

Arm 1: Conservative therapy + 2 Hz electroacupuncture at the above acupuncture points (n=32).

Arm 2 : Conservative therapy + 120 Hz electroacupuncture at the above acupuncture points (n=30).

6. Main outcome measures

Motor evoked potentials (MEP), National Institutes of Health Stroke Scale (NIHSS), Modified Barthel Index (MBI), and Modified Motor Assessment Scale (MMAS).

7. Main results

There was significantly more improvement in Arm 1 in latency, central motor conduction time (CMCT), and amplitude (P=0.008, 0.002, and 0.002, respectively), but not in NIHSS, MBI, and MMAS. There was more improvement in Arm 2 than Arm 1 in NIHSS, MBI, and MMAS, but the between-group difference was without significance.

8. Conclusions

Low frequency electroacupuncture is more effective than high frequency electroacupuncture for dyspraxia after stroke.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

High frequency electroacupuncture acts on the circulation, and low frequency electroacupuncture acts on the sympathetic nervous system. In this study, the difference in therapeutic effects between high and low frequency electroacupuncture suggest that the latter acts on the central nervous system. However, as the treatment period was short, a large scale study is needed.

11. Abstractor and date

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Lee SW, Yoon JM, Son JW, et al. The effect of electroacupuncture on upper-extremity spasticity of stroke patients. *Daehan-Hanbang-Naegwa-Hakhoeji* (*Journal of Korean Oriental Internal Medicine*) 2007; 28(3): 492–501 (in Korean with English abstract).

1. Objectives

To evaluate the effectiveness of treatment with electroacupuncture on upper-extremity spasticity in stroke patients.

2. Design

Randomized controlled trial (RCT).

3. Setting

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

4. Participants

Hemiplegic patients with upper-extremity spasticity after stroke (n=20).

5. Intervention

Arm 1: Conservative therapy + electroacupuncture treatment (5 rounds per week for 2 weeks, total 10 rounds, acupuncture for 20 minutes at the Quze (P3, 曲澤), Tianquan (PC2, 天泉), Neiguan (PC6, 內關), and Chize (LU5, 尺澤) acupuncture points; n=10).

Arm 2: Conservative therapy only (n=10).

Two subjects in Arm 2 dropped out during the study.

6. Main outcome measures

Score on the Modified Ashworth Scale (MAS), Fugl-Meyer Assessment (FAM), and H-reflex/M-response (H/M ratio).

7. Main results

1) There was no significant between-group difference in MAS.
2) FMA showed a tendency toward improvement in Arm 1 compared to Arm 2.
3) H/M ratio was significantly decreased after 2 hours in Arm 1 (–34.1±34.4 *vs.* –54.5±31.2 in Arm 2, P=0.006).

8. Conclusions

Electroacupuncture is effective for decreasing spasticity and improving functional recovery.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluated the effectiveness of electroacupuncture for upper-extremity spasticity due to stroke. H/M ratio was the only quantitative measure to show significant between-group differences. As the number of subjects were small and evaluation period was short, there is a need for additional clinical trials.

11. Abstractor

Go HY, 18 July 2010.

9. Cardiovascular Diseases

Reference

Ko CN, Min IK, Park SW, et al. Effectiveness of bee venom acupuncture on shoulder pain after stroke. *Daehan-Hanui-Hakhoeji* (*Journal of Korean Oriental Medical Society*) 2007; 28(1): 11–24 (in Korean with English abstract).

1. Objectives

To evaluate the effectiveness of bee venom acupuncture for shoulder pain in patients with hemiplegia after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Hospitalized patients found to have cerebral infarction or cerebral hemorrhage on brain CT or brain MRI, hemiplegia, and shoulder pain after stroke (n=46).

5. Intervention

Arm 1: Bee venom acupuncture (0.6 ml; venom:saline = 1: 10000) (n=24).
Arm 2: Saline placebo (0.6 ml) (n=22).

6. Main outcome measures

Effectiveness measured on a visual analogue scale (VAS), Pain rating score (PRS), Fugl-Meyer assessment of motor recovery, and measurement of passive external rotation.

7. Main results

The effectiveness and PRS were significantly improved in Arm 1 compared with Arm 2 (P=0.02 and 0.03, respectively).

8. Conclusions

Bee venom acupuncture treatment has an analgesic effect on shoulder pain in patients with hemiplegia after stroke.

9. Safety assessment in the article

Itching, skin flare, and pain occurred but were not specificially attributable to bee venom acupuncture.

10. Abstractor's comments

The shoulder pain is frequently observed in patients with hemiplegia after stroke. Many treatments such as electroacupuncture and taping have been tried for this complication of hemiplegia. Although bee venom acupuncture is highly effective, it hasn't be used in stroke patients because of concerns over adverse effects. No specific adverse effect was observed. It is suggested that a clinical trial with more patients is need to confirm the conclusion of this study.

11. Abstractor

Kim HJ, 17 August 2010.

9. Cardiovascular Diseases

Reference

Lee DY, Lee GM, Yeom SC, et al. A clinical study of bee venom acupuncture therapy on shoulder pain patients in stroke sequelae. *Daehan-Chimgu-Hakhoeji* (*Journal of Korean Acupuncture & Moxibustion Society*) 2006; 23(4): 69–80 (in Korean with English abstract).

1. Objectives

To evaluate the effectiveness of bee venom acupuncture therapy for shoulder pain in patients with hemiplegia after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Oriental Medical Hospital at Sanbon, Wonkwang University), Republic of Korea.

4. Participants

Hospitalized patients found to have cerebral infarction or cerebral hemorrhage on brain CT or brain MRI, shoulder pain on the paralyzed side, no aphasia and cognitive impairment, stabilized vital signs, and neurological symptoms (n=40).

5. Intervention

Arm 1: Conventional therapy (drugs, acupuncture, moxibustion, physiotherapy, kinesitherapy) + Bee venom acupuncture (n=20).

Arm 2: Conventional therapy only (n=20).

6. Main outcome measures

Pain intensity measured on a visual analogue scale (VAS), passive range of motion (ROM), motor function score, pain on motion score, and score on the Modified Ashworth scale for spasticity.

7. Main results

The decrease in pain intensity was greater in Arm 1 than Arm 2. After three weeks of treatment, the between-group difference was statistically significant ($P<0.05$).

8. Conclusions

Treatment with bee venom acupuncture is effective for shoulder pain in hemiplegia after stroke.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

The shoulder pain occurs in 70–80% of patients with hemiplegia. The objective of this study is similar to that of the study of Ko et al (*Daehan-Hanui-Hakhoeji* [*Journal of Korean Oriental Medical Society*] 2007; 28 [1]: 11–24). This was a randomized clinical trial, but some requirements of randomization were not fulfilled. To improve the quality of the scientific evidence, the design of a future study should include random assignment to a placebo saline control group.

11. Abstractor

Kim HJ, 17 August 2010.

9. Cardiovascular Diseases

Reference

Cho SW, Go KH, Nam JH, et al. The effectiveness of *Zingiberis Rhizoma* herbal acupuncture therapy and bee venom herbal acupuncture therapy on the poststroke hemiplegic shoulder pain. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji* (*Journal of Oriental Rehabilitation Medicine*) 2005; 15(4): 77–87 (in Korean with English abstract).

1. Objectives

To evaluate the effect of ginger herbal acupuncture and bee venom acupuncture on hemiplegic shoulder pain after stroke.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Oriental Medical Hospital of Dongeui Universtiy at Busan and Ulsan), Republic of Korea.

4. Participants

Hemiplegic patients three weeks after stroke onset and shoulder pain with Manual Muscle Test (MMT) grade 1 - 4 (n=23).

5. Intervention

Treatment at the Jianyu (LI15, 肩髃), Jianliao (TE14, 肩髎), Jianjing (GB21, 肩井), and Naoshu (SI10, 臑俞) acupuncture points, one round every 2 days for 2 weeks, 6 rounds in total.

Arm 1: Conservative therapy + ginger herbal acupuncture (n=12).

Arm 2: Conservative therapy + bee venom acupuncture (n=11).

6. Main outcome measures

Upper extremity muscle strength measured by Manual muscle test (MMT) score, pain on shoulder movement measured on a visual analogue scale (VAS), and passive range of motion (ROM).

7. Main results

1) Both ginger herbal and bee venom accupuncture significantly improved muscle strength and reduced shoulder pain ($P<0.05$).
2) Bee venom accupuncture significantly improved every aspect of range of motion (abduction, adduction, felxion, and extension: $P=0.005$, 0.024, 0.007, and 0.007, respectively), but ginger herbal accupuncture significantly improved only adduction and flexion (adduction and felxion: $P=0.043$ and 0.027, respectively).
3) There were no between-group differences in pain intensity after one and two weeks of treatment, but there was significant improvement in pain intensity between one and two weeks of treatment with bee venom acupuncture ($P<0.032$).

8. Conclusions

Ginger herbal acupuncture and bee venom acupuncture are both effective for shoulder pain in patients with hemiplegia after stroke. Bee venom acupuncture is more effective.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluated the effect of ginger herbal acupuncture and bee venom acupuncture on shoulder pain after stroke, and the bee venom acupuncture had more efficacy. Insofar as the sample size is small and study period is short, the need for additional clinical study is suggested.

11. Abstractor

Go HY, 18 July 20

9. Cardiovascular Diseases

Reference

Moon SK, Whang YK, Park SU,et al. Antispastic effect of electroacupuncture and moxibustion in stroke patients. *American Journal of Chinese Medicine* 2003; 31(3): 467–74.

1. Objectives

To evaluate the antispastic effect of the electroacupuncture and Moxibustion on stroke patients.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants

Patients with stroke onset of more than 5 weeks and a spastic elbow joint (n=35).

5. Intervention

Arm 1: Conservative therapy + electroacupuncture treatment at the Quchi (LI11, 曲池)-Shousanli (LI10, 手三里) or Waiguan (TE5, 外關)-Hegu (LI4, 合谷) acupuncture points for 8 rounds (n=15).

Arm 2: Conservative therapy + moxibustion treatment at the Quchi (LI11, 曲池)-Shousanli (LI10, 手三里) or Waiguan (TE5, 外關)-Hegu (LI4, 合谷) acupuncture points (n=10).

Arm 3: Control treatment group (n=10).

6. Main outcome measures

Score on the Modified Ashworth Scale.

7. Main results

Spasticity was significantly decreased at 1 and 3 hours and 5 days by electroacupuncture treatment ($P<0.05$), but not by moxibustion treatment.

8. Conclusions

Electroacupuncture temporarily relieves spasticity in patients with stroke, and repeated application maintains relief.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluates the effectiveness of electroacupuncture and moxibustion on spasticity due to stroke. Electroacupuncture had significant efficacy for spasticity. This 8-week study failed to show any significant efficacy of moxibustion treatment. A future large scale and long term clinical trial is needed to test moxibustion at other acupuncture points and using other treatment courses.

11. Abstractor

Go HY, 18 July 2010.