

NEWS SCIENTIFICHE 2009

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Come si può vedere, la ricerca nel campo dell'agopuntura è molto attiva ed è orientata nei settori più disparati della scienza biomedica. Chi fosse interessato a reperire tutti i lavori scientifici pubblicati in letteratura recensita dal 1966 ad oggi, può connettersi all'indirizzo Web:

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La parola chiave (keyword) da utilizzare nelle ricerche è:

Acupuncture

ABSTRACTS 2009

Eur J Pain. 2010 Apr;14(4):402-9.

The relationship between patient and practitioner expectations and preferences and clinical outcomes in a trial of exercise and acupuncture for knee osteoarthritis.

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We investigated the relationship between patient and therapist preferences and expectations and clinical outcomes in a trial of exercise and acupuncture for clinical knee osteoarthritis. 352 Patients were randomised to advice and exercise or advice and exercise plus true or non-penetrating acupuncture. Before randomisation, patients recorded their general outcome expectations, treatment-specific preferences and expectations. Clinical outcome was (a) change scores on the Western Ontario and McMaster Osteoarthritis Index (WOMAC) and (b) treatment response according to the OMERACT-OARSI criteria. Physiotherapists recorded their treatment expectations and preferences for each patient following an assessment prior to randomisation. We investigated the relationship between (a) patient, (b) therapist and (c) matched patient-therapist preferences and expectations on clinical outcomes using unvaried and multivariate analyses. There was no significant relationship between patients' treatment preferences and clinical outcomes at 6 or 12 months nor between patients' expectations and pain (WOMAC) at 6 or 12 months. Using our secondary outcome (OMERACT-OARSI), those who received the treatment for which they had high expectations of benefit were almost twice as likely to be classified as a treatment responder at 6 months (odds ratio (OR) 1.7 (95% Confidence Interval 1.06, 2.79)) and 12 months (OR) 1.9 (1.13, 3.13). Therapists' preferences and expectations for individual patients did not add further explanation of outcomes. There was no evidence of a relationship between patients' treatment preferences or expectations and pain reduction. We found weak evidence, from secondary outcomes, that patients' expectations, both general and treatment-specific, are related to clinical outcome from exercise and acupuncture. Copyright (c) 2009 European Federation of International Association for the Study of Pain Chapters.

J Clin Oncol. 2010 Feb 1;28(4):634-40.

Acupuncture versus venlafaxine for the management of vasomotor symptoms in patients with hormone receptor-positive breast cancer: a randomized controlled trial.

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PURPOSE: Vasomotor symptoms are common adverse effects of antiestrogen hormone treatment in conventional breast cancer care. Hormone replacement therapy is contraindicated in patients with breast cancer. Venlafaxine (Effexor), the therapy of choice for these symptoms, has numerous adverse effects. Recent studies suggest acupuncture may be effective in reducing vasomotor symptoms in menopausal women. This randomized controlled trial tested whether acupuncture reduces vasomotor symptoms and produces fewer adverse effects than venlafaxine.

PATIENTS AND METHODS: Fifty patients were randomly assigned to receive 12 weeks of acupuncture (n = 25) or venlafaxine (n = 25) treatment. Health outcomes were measured for up to 1 year post-treatment.

RESULTS: Both groups exhibited significant decreases in hot flashes, depressive symptoms, and other quality-of-life symptoms, including significant improvements in mental health from pre- to post-treatment. These changes were similar in both groups, indicating that acupuncture was as effective as venlafaxine. By 2 weeks post-treatment, the venlafaxine group experienced significant increases in hot flashes, whereas hot flashes in the acupuncture group remained at low levels. The venlafaxine group experienced 18 incidences of adverse effects (eg, nausea, dry mouth, dizziness, anxiety), whereas the acupuncture group experienced no negative adverse effects. Acupuncture had the additional benefit of increased sex drive in some women, and most reported an improvement in their energy, clarity of thought, and sense of well-being.

CONCLUSION: Acupuncture appears to be equivalent to drug therapy in these patients. It is a safe, effective and durable treatment for vasomotor symptoms secondary to long-term antiestrogen hormone use in patients with breast cancer.

Chin J Integr Med. 2009 Dec;15(6):426-30. Epub 2010 Jan 18.

Analysis on the effect of acupuncture in treating cervical spondylosis with different syndrome types.

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OBJECTIVE: To observe the clinical effect of acupuncture in treating cervical spondylosis with different syndrome types.

METHODS: One hundred and seventeen patients were randomized into the treated group: (59 cases), treated with normal acupuncture, and the control group (58 cases), treated with sham acupuncture, operated once every other day, 9 times in total (in 18 days) as one therapeutic course, and a succeeding 3-month follow-up study was carried out after terminating the therapy. The efficacy of treatment was evaluated with the Northwick Park Neck Pain Questionnaire (NPQ) and Visual Analogue Scale (VAS), and the scores gained in patients with different syndrome types were analyzed with a general linear model.

RESULTS: The NPQ and VAS: scores showed a linear decreasing tendency in both groups at the time of ending treatment and the 1st month of follow-up, but showed a secondary curve increasing tendency in the 3rd month of follow-up. Multivariate analysis

showed the difference was of statistical significance ($P < 0.05$). However, the analysis through lead-in of syndrome type as an individual influencing factor showed that syndrome type exerts a significant influence on VAS score ($P < 0.05$), but has insignificant influence on the NPQ score ($P > 0.05$).

CONCLUSION: Acupuncture shows: good immediate effect in treating cervical spondylosis, but its long-term effect is not satisfactory. The difference in syndrome type may have some impact on the effects of acupuncture in alleviating pain, but exerts no evident influence on the comprehensive effect.

Fertil Steril. 2009 Dec;92(6):1870-9.

Changes in serum cortisol and prolactin associated with acupuncture during controlled ovarian hyperstimulation in women undergoing in vitro fertilization-embryo transfer treatment.

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OBJECTIVE: To determine whether changes in serum cortisol (CORT) and PRL are affected by acupuncture (Ac) in Ac-treated IVF patients. **DESIGN:** Prospective cohort clinical study.

SETTING: Private practice reproductive endocrinology and infertility clinic and private practice acupuncture consortium.

PATIENT(S): Sixty-seven reproductive-age infertile women undergoing IVF.

INTERVENTION(S): Blood samples were obtained from all consenting new infertility patients and serum CORT and serum PRL were obtained prospectively. Patients were grouped as controls (IVF with no Ac) and treated (IVF with Ac) according to acupuncture protocols derived from randomized controlled trials.

MAIN OUTCOME MEASURE(S): Serum levels of CORT and PRL were measured and synchronized with medication stimulation days of the IVF cycle (e.g., day 2 of stimulation, day 3, etc.). Reproductive outcomes were collected according to Society for Assisted Reproductive Technology protocols, and results were compared between controls and those patients treated with Ac.

RESULT(S): CORT levels in Ac group were significantly higher on IVF medication days 7, 8, 9, 11, 12, and 13 compared with controls. PRL levels in the Ac group were significantly higher on IVF medication days 5, 6, 7, and 8 compared with controls.

CONCLUSION(S): In this study, there appears to be a beneficial regulation of CORT and PRL in the Ac group during the medication phase of the IVF treatment with a trend toward more normal fertile cycle dynamics.

Zhen Ci Yan Jiu. 2009 Dec;34(6):421-8.

A meta analysis on randomized controlled trials of acupuncture treatment of chronic fatigue syndrome

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OBJECTIVE: To assess the effectiveness of acupuncture treatment of chronic fatigue syndrome (CFS).

METHODS: According to the requirement of evidence-based medicine, CFS, fatigue syndrome, acupuncture and moxibustion, acupuncture, electroacupuncture, auricular acupuncture, auricular pellet pressure, plum-blossom needle, intradermal needle, moxibustion, three edged needle, cupping, cup-moving, acupoint injection, etc. were selected as the subject words for retrieving the related papers from domestic and foreign medical databases. The RCT was used as the enrolled criteria, and the clinical cure rate, markedly effective rate, total effective rate, and the scores of the Fatigue Assessment Instrument Questionnaire (FAI) and fatigue scale (FS) were used as the assessment indexes. The statistical package (RevMan 4.2) was used to review management and analysis of 13 papers.

RESULTS: A total of 28 papers were enrolled. Logistic regression analysis showed that the total odds ratio (OR) was 4.56, with 95% confidence interval (CI) 2.84, 7.33 for the total effective rate in 10 studies, the total OR was 2.07 with 95% CI 1.49, 2.88 for the markedly effective rate in 8 studies, and the total OR was 2.51 with 95% CI 1.64, 3.85 for the clinical cure rate in 8 studies. The weighted mean difference (WMD) was -29.52 with 95% CI -36.17, -22.88 for the FAI score in 3 studies, and the WMD -1.22 with 95% CI -1.77, -0.67 for the FS score in 4 studies. The therapeutic effect in the treatment group of CFS was superior to that in the control group ($P < 0.01$). **CONCLUSION:** Acupuncture therapy is effective for CFS, but still needs being confirmed by more high-quality studies.

Zhen Ci Yan Jiu. 2009 Dec;34(6):413-20.

Acupuncture therapy for arrhythmia and other cardiac disorders: clinical and laboratory investigation

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Clinical studies have shown that acupuncture therapy is effective for certain cardiovascular diseases, especially cardiac arrhythmia resulting from neural dysfunction. The therapeutic efficacy varies depending on types of diseases, acupoints stimulated and acupuncture manipulation (or electroacupuncture parameters). The mechanistic research shows that acupuncture signal initiated at the acupoints is transferred to the brain through afferent nervous pathway and thus modulates the function of neurotransmitter systems. Then, the output signaling cascades relieve the cardiovascular dysfunction through efferent neural regulation. There are also several lines of evidence suggesting that the acupuncture effects involve complex mechanisms at multiple levels, including intracellular signal transduction, gene expression, endocrine secretion, humoral and dielectric regulation. Therefore, the acupuncture effects on cardiovascular disorders are dependent on an integrated mechanism mediated by multiple factors at central and peripheral levels. However, the detail of the mechanism is largely unclear yet. The potential problems in the literature are briefly discussed in this review.

Zhen Ci Yan Jiu. 2009 Dec;34(6):403-5.

Clinical observation on the effect of acupuncture-assisted anesthesia for 40 cases of mixed hemorrhoids surgery

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OBJECTIVE: To observe the efficacy of comined administration of acupuncture and anesthetics for mixed hemorrhoids surgery and its postoperative complications.

METHODS: A total of 40 cases of mixed hemorrhoid patients were randomized into acupuncture-assisted anesthesia (AAA) group and narcotic drug group (control), with 20 cases in each. For patients of AAA group, electroacupuncture (EA, 2 Hz/100 Hz, 9 mA) was applied to Changqiang (GV 1) and Yaoshu (GV 2) for 20 min, and 1% lidocaine (5 mL) was injected into GV 1. For patients of control group, 20 mL and 10 mL of 1% lidocaine were injected into GV 2 and GV 1, separately. The patients' pain response, anus muscular relaxation state, and postoperative complications were observed to evaluate their clinical efficacy.

RESULTS: Of the 20 cases in AAA and control groups, 16 and 18 cases had a striking analgesic effect, 4 and 2 were effective, respectively. No significant difference was found between two groups in the analgesic efficacy for surgery ($P>0.05$). Postoperative urinary retention, pain severity I and II and the cases with intoxic response in AAA and control groups were 1 and 8, 16 and 6, 4 and 14, and 1 and 9, separately. The effects of AAA group were significantly superior to those of control group in lessening urinary retention and toxication, and in inducing analgesia ($P<0.05$).

CONCLUSION: Acupuncture combined with narcotic drugs is superior to simple anesthetics for mixed hemorrhoids surgery in reducing postoperative complications.

Zhongguo Zhen Jiu. 2009 Dec;29(12):981-5.

Study on the effects of acupuncture at acupoint and non-acupoint on functional connectivity of different brain regions with functional magnetic resonance imaging

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OBJECTIVE: To investigate the basis of distinctive function of acupoint through observing the effects of acupuncture at the areas of acupoint and non-acupoint on functional connectivity of different brain regions.

METHODS: Twenty-one healthy volunteers were randomly divided into two groups: 12 cases in the acupoint group and 9 cases in the non-acupoints group. Bilateral Zusanli (ST 36) and its lateral 3-4 mm were punctured with twirling manipulation in the acupoint group and the non-acupoints group respectively. Before and after 25 minutes treatment, data of functional magnetic resonance imaging (fMRI) scanning was taken from bilateral cingulate gyrus (seed point) to analyze the functional connectivity in both groups.

RESULTS: Brain functional connectivity was demonstrated widely in both acupoint group and non-acupoint group after acupuncture. Comparing with the non-acupoint group, in the acupoint group, brain functional connectivity with posterior cingulate gyrus was found more intensively in the bilateral tonsil, right dentate nucleus, bilateral uvula, left declive and right tuber of cerebellum, as well as in the left inferior frontal gyrus, right middle temporal gyurs, bilateral paracentral lobule, left cingulate cortex, right superior temporal gyrus, right anterior cingulate gyrus etc., however, its connectivity was less in the bilateral medial frontal gyrus and right inferior frontal gyrus.

CONCLUSION: Both acupoint and non-acupoint can evoke brain functional connectivity that is similar on the most of regions, but the intensity of this connectivity in the acupoint group is higher than that in the non-acupoint group.

Zhongguo Zhen Jiu. 2009 Dec;29(12):973-6.

Observation on therapeutic effect of acupuncture on hyperemesis gravidarum

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OBJECTIVE: To explore a more effective therapy for treatment of hyperemesis gravidarum.

METHODS: Ninety cases were randomly divided into an acupuncture group, a western medicine group and a Chinese medicine group, 30 cases in each group. They were treated with same supplement of water and electrolyte, with acupuncture at Dazhu (BL 11), Shangjuxu (ST 37), Neiguan (PC 6), Gongsun (SP 4), etc. added in the acupuncture group, with oral administration of Luminal 30 mg thrice each day added in the western medicine group and with oral administration of Chinese herbal decoction according to syndrome differentiation of TCM added in the Chinese medicine group. The therapeutic effect, ketone bodies, carbon dioxide combining power (CO₂-CP) and electrolyte imbalance situation in all the groups were observed.

RESULTS: After treatment for 7 days, the total effective rate of 96.7% in the acupuncture group was better than 46.7% in the western medicine group and 60.0% in the Chinese medicine group (both $P < 0.01$). There were significant improvements in ketone bodies in the acupuncture group compared with those before treatment and those in the western medicine group (both $P < 0.05$), and improvements in CO₂-CP and electrolyte imbalance in all the groups were following the recovery of disease.

CONCLUSION: Acupuncture has rapid and obvious therapeutic effect on hyperemesis gravidarum without adverse reactions.

Zhongguo Zhen Jiu. 2009 Dec;29(12):955-8.

Electroacupuncture at Zusanli (ST 36) for treatment of nausea and vomiting caused by the chemotherapy of the malignant tumor: a multicentral randomized controlled trial

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OBJECTIVE: To compare the clinical effects between electroacupuncture at Zusanli (ST 36) combined with intravenous drip of Granisetron and intravenous drip of Granisetron only for treatment of nausea and vomiting caused by the chemotherapy of the malignant tumor. **METHODS:** The METHODS of multicentral, randomised controlled trial were used, the observation group (127 cases) was treated with electroacupuncture at Zusanli (ST 36) combined with intravenous drip of Granisetron, and the control group (119 cases) was treated with intravenous drip of Granisetron only.

RESULTS: The total effective rate of 90.5% in observation group was superior to that of 84.0% in control group ($P < 0.01$); the nausea and vomiting scores of two groups were obviously decreased after treatment (both $P < 0.001$), and the decreased degree of the observation group was superior to that of control group ($P < 0.001$).

CONCLUSION: Electroacupuncture at Zusanli (ST 36) can significantly alleviate the symptoms such as nausea and vomiting caused by the chemotherapy of the patients.

Acta Anaesthesiol Scand. 2009 Nov;53(10):1341-7.

Effect of P6 acustimulation on post-operative nausea and vomiting in patients undergoing a laparoscopic cholecystectomy.

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BACKGROUND: Non-pharmacologic techniques such as electrical acustimulation may mitigate post-operative nausea and vomiting (PONV). The primary purpose of this study was to investigate the effectiveness of acustimulation on attenuating PONV. Moreover, we tested whether a pre- or a post-induction application of acustimulation

RESULTS in differences in PONV reduction.

METHODS: In this prospective, double-blind, randomized, controlled trial, we studied 200 patients undergoing a laparoscopic cholecystectomy during propofol (induction) fentanyl/isoflurane/atracurium (maintenance) anaesthesia. In the acustimulation group ($n=101$), subdivided into groups with pre-induction ($n=57$) and post-induction ($n=44$) acustimulation, an active ReliefBand device

was placed at the P6 acupoint. In the sham group (n=99), also subdivided into pre-induction (n=55) or post-induction (n=44) groups, an inactive device was applied instead. The ReliefBand remained in place for 24 h after surgery. Nausea and vomiting/retching were recorded at 2, 6, and 24 h post-operatively.

RESULTS: The incidence of early nausea (up to 2 h) was significantly lower in the acustimulation than in the sham group (29% vs. 42%; $P=0.043$). No significant effect could be detected for retching/vomiting. Moreover, acustimulation showed no effect on PONV after 6 and 24 h. Risk factor analysis (female gender, non-smoker, history of PONV/motion sickness, and post-operative morphine usage) revealed a relative reduction in risk of 40% for nausea ($P=0.021$) and 55% for retching/vomiting ($P=0.048$) in patients with three or four risk factors present. The timing of (pre- vs. post-induction) acustimulation had no significant effect on PONV reduction.

CONCLUSION: Acustimulation at the P6 acupoint reduces early nausea, but not vomiting, after laparoscopic cholecystectomy, irrespective of its pre- or post-induction application.

Am J Rhinol Allergy. 2009 Nov-Dec;23(6):e23-8.

Acupuncture for nasal congestion: a prospective, randomized, double-blind, placebo-controlled clinical pilot study.

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BACKGROUND: Nasal congestion is one of the most common complaints dealt with in otorhinolaryngology. Side effects of decongestants are frequently seen in patients with chronic nasal congestion. This leads to an increasing demand of alternative treatments such as acupuncture. Future studies on acupuncture should aim at objectifying effects by both physical measuring and double blinding. Therefore, we were interested in whether these effects can potentially be measured as increase in nasal airflow (NAF) in ventus ("wind") disease of traditional Chinese medicine (TCM).

METHODS: Twenty-four patients with a history of nasal congestion due to hypertrophic inferior turbinates or chronic sinusitis without polyposis were additionally diagnosed according to the Heidelberg model of TCM. They were asked to score the severity of their nasal congestion on a visual analog scale (VAS). The acupuncturist was blinded according to the Heidelberg blinding assay. NAF was measured by using active anterior rhinomanometry (ARM). Specific verum acupoints according to the Chinese medical diagnosis were tested against nonspecific control acupoints. VAS and NAF were scored and measured before and 15 and 30 minutes after acupuncture.

RESULTS: Control acupuncture showed a significant improvement in VAS and a deterioration of NAF. Verum acupuncture showed highly significant improvements in VAS and NAF. In addition, verum acupuncture improved NAF and VAS significantly over time.

CONCLUSION: Our control and verum acupoints fulfill the condition of a control and verum treatment, respectively. Measuring NAF by RRM and scoring VAS are possible and reflect acupuncture effects in vivo.

Breast Cancer Res Treat. 2009 Nov;118(2):255-67.

The efficacy of acupoint stimulation for the management of therapy-related adverse events in patients with breast cancer: a systematic review.

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The aim of the present study was to scrutinize the evidence on the use of acupoint stimulation for managing therapy-related adverse events in breast cancer. A comprehensive search was conducted on eight English and Chinese databases to identify clinical trials designed to examine the efficacy of acupressure, acupuncture, or acupoint stimulation (APS) for the management of adverse events due to treatments of breast cancer. Methodological quality of the trials was assessed using a modified Jadad scale. Using pre-determined keywords, 843 possibly relevant titles were identified. Eventually 26 papers, 18 in English and eight in Chinese, satisfied the inclusion criteria and entered the quality assessment stage. The 26 articles were published between 1999 and 2008. They assessed the application of acupoint stimulation on six disparate conditions related to anticancer therapies including vasomotor syndrome, chemotherapy-induced nausea and vomiting, lymphedema, post-operation pain, aromatase inhibitors-related joint pain and leukopenia. Modalities of acupoint stimulation used included traditional acupuncture, acupressure, electroacupuncture, and the use of magnetic device on acupuncture points. Overall, 23 trials (88%) reported positive outcomes on at least one of the conditions examined. However, only nine trials (35%) were of high quality; they had a modified Jadad score of 3 or above. Three high quality trials revealed that acupoint stimulation on P6 (NeiGuang) was beneficial to chemotherapy-induced nausea and vomiting. For other adverse events, the quality of many of the trials identified was poor; no conclusive remarks can be made. Very few minor adverse events were observed, and only in five trials. APS, in particular acupressure on the P6 acupoint, appears beneficial in the management of chemotherapy-induced nausea and vomiting, especially in the acute phase. More well-designed trials using rigorous methodology are required to evaluate the effectiveness of acupoint stimulation interventions on managing other distress symptoms.

J Altern Complement Med. 2009 Nov;15(11):1209-14.

Effect of acupuncture on induction of labor.

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OBJECTIVE: The objective of this study is to review the existing scientific evidence on the potential role of acupuncture on induction of labor during pregnancy. **DESIGN:** The Medline, EMBASE, Cochrane Central Register of Controlled Trials, AMED (Allied and Complementary Medicine), and NCCAM (The National Center for Complementary and Alternative Medicine) databases were searched to identify relevant monographs from 1970 to 2008. **inclusion criteria:** These criteria included all available human acupuncture studies on pregnant women carrying a viable fetus due for third trimester induction of labor.

EXCLUSION CRITERIA: These criteria included studies not meeting the INCLUSION CRITERIA, in languages other than English, or animal studies.

RESULTS: Ten (10) studies on labor induction were identified. The duration of labor as a result of acupuncture treatment ranged from 10 hours 20 minutes to 29.1 hours. All of the studies demonstrated labor induction by acupuncture treatment. However, because two randomized controlled trials reported that there was no statistically significant effect of acupuncture, these results are more suggestive than definitive. Furthermore, although the relationship between cervical ripening and interleukin-8 (IL-8), prostaglandin F(2alpha) (PGF(2alpha)), and beta-endorphin is well documented in the literature, there is no evidence to suggest that acupuncture alters these mediators. Serum levels of IL8, beta-endorphin, and PGF(2alpha) were not found to be significantly influenced by acupuncture.

CONCLUSIONS: Although the definitive role of acupuncture in inducing labor is still yet to be established, the existing studies suggest that acupuncture may be beneficial in labor induction. Further randomized clinical trials are needed to investigate this further.

J Altern Complement Med. 2009 Nov;15(11):1193-200.

Effects of scalp acupuncture versus upper and lower limb acupuncture on signal activation of blood oxygen level dependent (BOLD) fMRI of the brain and somatosensory cortex.

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OBJECTIVE: The OBJECTIVE of this article is to investigate brain activity of scalp acupuncture (SA) as compared to upper and lower limb acupuncture (ULLA) using functional magnetic resonance imaging (fMRI).

SUBJECTS AND METHODS: Ten (10) healthy right-handed female volunteers aged 20-35 were divided into 2 groups: a SA group and an ULLA group. The SA group had needles inserted at the left Sishencong (HN1), GB18, GB9, TH20, and the ULLA group at the right LI1, LI10, LV3, ST36 for 20 minutes, respectively. Both groups had tactile stimulation in the order of the right LI1, LI10, LV3, ST36 before and after acupuncture for a block of 21 seconds repeated 3 times. The blood oxygen level dependent (BOLD) fMRI was used to observe the brain and somatosensory cortex signal activation.

RESULTS: We compared the signal activation before and after acupuncture needling, and the images showed signal activation after removing the acupuncture needles and the contralateral somatosensory association cortex, the postcentral gyrus, and the parietal lobe were more activated in the SA group. The right occipital lobe, the lingual gyrus, the visual association cortex, the right parahippocampal gyrus, the limbic lobe, the hippocampus, the left anterior lobe, the culmen, and the cerebellum were activated in the ULLA group.

CONCLUSIONS: We concluded that there were different signal activations of BOLD fMRI before and after SA versus ULLA, which can be thought to be caused by the sensitivity of acupoints and the different sensory receptors to acupuncture needling.

J Altern Complement Med. 2009 Nov;15(11):1171-86.

Acupuncture for treatment of insomnia: a systematic review of randomized controlled trials.

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BACKGROUND: Acupuncture is commonly used in treating insomnia in China, and clinical studies have shown that acupuncture may have a beneficial effect on insomnia compared with Western medication.

METHODS: We included randomised controlled trials on acupuncture for insomnia. We searched PubMed, the Cochrane Library (2008 Issue 3), China Network Knowledge Infrastructure (CNKI), Chinese Scientific Journal Database (VIP), and Wan Fang Database. All searches ended in December 2008. Two authors extracted data and assessed the trials' quality independently. RevMan 5.0.17 software was used for data analysis with effect estimate presented as relative risk (RR) and mean difference (MD) with a 95% confidence interval (CI).

RESULTS: Forty-six (46) randomized trials involving 3811 patients were included, and the methodological quality of trials was generally fair in terms of randomization, blinding, and intention-to-treat analysis. Meta-analyses showed a beneficial effect of acupuncture compared with no treatment (MD -3.28, 95% CI -6.10 to -0.46, $p = 0.02$; 4 trials) and real acupressure compared with sham acupressure (MD -2.94, 95% CI -5.77 to -0.11, $p = 0.04$; 2 trials) on total scores of Pittsburgh Sleep Quality Index. Acupuncture was superior to medications regarding the number of patients with total sleep duration increased for >3 hours (RR 1.53, 95% CI 1.24-1.88, $p < 0.0001$). However, there was no difference between acupuncture and medications in average sleep duration (MD -0.06, 95% CI -0.30-0.18, $p = 0.63$). Acupuncture plus medications showed better effect than medications alone on total sleep duration (MD 1.09, 95% CI 0.56-1.61, $p < 0.0001$). Similarly, acupuncture plus herbs was significantly better than herbs alone on increase of sleep rates (RR 1.67, 95% CI 1.12-2.50, $p = 0.01$). There were no serious adverse effects with related to acupuncture treatment in the included trials.

CONCLUSIONS: Acupuncture appears to be effective in treatment of insomnia. However, further large, rigorous designed trials are warranted.

J Wound Ostomy Continence Nurs. 2009 Nov-Dec;36(6):661-70.

The efficacy of acupuncture in treating urge and mixed incontinence in women: a pilot study.

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PURPOSE: The propose of this pilot study was to examine the feasibility of recruiting women into a clinical trial designed to examine the efficacy of acupuncture in treating urge and mixed urinary incontinence (UI) and the feasibility of performing the planned study procedures. We also sought to determine if there was preliminary evidence to suggest that acupuncture may be effective in reducing UI and improving general health-related and disease-specific quality of life and if a sham acupuncture needle is an effective placebo intervention.

DESIGN: This pilot study was a double-blinded, randomized, clinical trial. Subjects were randomly assigned to a true or sham (placebo control) acupuncture group. Both true and sham acupuncture treatments were performed twice a week for 6 weeks. All subjects were evaluated at the completion of the 6-week intervention and 4 weeks later.

SAMPLE: The sample consisted of 9 women between the ages of 44 and 66 years with urge or mixed urge and stress UI at least twice a week for a minimum of 3 months.

MEASURES: Subjects completed a 1-week bladder diary at baseline and at 1 and 4 weeks postacupuncture to assess the impact of acupuncture on incontinence episodes. Quality of life was measured at baseline and at 1 and 4 weeks postacupuncture using the Medical Outcomes Short-Form (general health-related quality of life) and the Incontinence Impact Questionnaire and Urogenital Distress Inventory (incontinence-specific quality of life).

RESULTS: It was feasible to recruit subjects and perform the planned study procedures. Subjects randomized to the true acupuncture group had a mean 63.30% (median = 65.99%) reduction in daytime accidents/day at 1 week postacupuncture and 67.47% reduction (median = 75.76%) at 4 weeks postacupuncture. In contrast, the mean reduction in daytime accidents was 18.88% (median = 19.64%) at 1 week and 16.67% (median = 0%) at 4 weeks post-sham acupuncture. There were no significant group differences in changes in the scores on the quality-of-life measures. Subjects' perceptions about whether they had received the true or sham acupuncture were not significantly better than one would expect by chance.

CONCLUSIONS: The findings of this pilot study support the need for additional research examining the efficacy of acupuncture in the treatment of UI in women, the feasibility of performing study procedures, and the use of a sham needle as placebo in acupuncture studies.

Zhongguo Zhen Jiu. 2009 Nov;29(11):861-4.

Investigation on therapeutic effect and mechanism of acupuncture at Fengchi (GB 20) and "Gongxue" for treatment of patients with vertebral-basilar insufficiency

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OBJECTIVE: To compare the difference of the therapeutic effect of acupuncture and western medicine on the patients with vertebral-basilar insufficiency (VBI), and investigate its mechanism.

METHODS: According to the different velocity of blood flow recorded by Transcranial Doppler (TCD), sixty patients with VBI were divided into an acupuncture group (31 cases) and a western medicine group (29 cases). In the acupuncture group, the patients were punctured at Fengchi (GB 20) and "Gongxue" (Extra). In the western medicine group, the patients were orally given the Flunarizine hydrochlorid capsules. Before and after two-week treatment, the clinical symptoms and related data of TCD were compared, analyzed and evaluated.

RESULTS: The clinical symptoms were obviously improved in the acupuncture group, which was better than the western medicine group ($P < 0.05$). Acupuncture not only could up-regulate the velocity of vertebral-basilar blood flow (VBF) on the patients with slower VBF of peak-systolic phase (V_s), end-diastolic phase (V_d) and mean value (V_m), but also reduced the VBF on the patients with faster V_s , V_d and V_m . In comparison of the data before and after treatment, there were significantly differences in two groups ($P < 0.05$), however, there were no difference between the two groups (all $P > 0.05$). On the index of vascular pulsation (PI), resistance index (RI) and V_s/V_d , there were no difference in both groups before and after treatment (all $P > 0.05$).

CONCLUSION: Acupuncturing at Fengchi (GB 20) and "Gongxue" has bidirectional and beneficial function of regulation on the VBF, but no active role on the compatibility of vertebral-basilar blood vessel.

BMC Musculoskelet Disord. 2009 Oct 24;10:130.

Acupuncture for pain and osteoarthritis of the knee: a pilot study for an open parallel-arm randomised controlled trial.

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BACKGROUND: There is some evidence that acupuncture for pain and osteoarthritis (OA) of the knee is more than a placebo, and short term clinical benefits have been observed when acupuncture is compared to usual care. However there is insufficient evidence on whether clinical benefits of acupuncture are sustained over the longer term. In this study our key objectives are to inform the design parameters for a fully powered pragmatic randomised controlled trial. These objectives include establishing potential recruitment rates, appropriate validated outcome measures, attendance levels for acupuncture treatment, loss to follow up and the sample size for a full scale trial.

METHODS: Potential participants aged over 50 with pain and osteoarthritis of the knee were identified from a GP database. Eligible patients were randomised to either 'acupuncture plus usual care' and 'usual care' alone, with allocation appropriately concealed. Acupuncture consisted of up to 10 sessions usually weekly. Outcome measures included Western Ontario and McMaster Universities (WOMAC) index with the sample size for a full scale trial determined from the variance.

RESULTS: From the GP database of 15,927 patients, 335 potential trial participants were identified and invited to participate. After screening responses, 78 (23%) were identified as eligible and 30 patients who responded most promptly were randomised to 'acupuncture plus usual care' (15 patients) and 'usual care' alone (15 patients). Attendance for acupuncture appointments was high at 90% of the maximum. Although the trial was not powered to detect significant changes in outcome, the WOMAC pain index showed a statistically significant reduction at 3 months in the acupuncture group compared to usual care. This was not sustained at 12 months. The sample size for a fully powered two-arm trial was estimated to be 350.

CONCLUSION: This pilot study provided the evidence that a fully powered study to explore the longer term impact of acupuncture would be worthwhile, and relevant design features for such a trial were determined.

Fertil Steril. 2009 Oct;92(4):1340-3.

A prospective randomized placebo-controlled study of the effect of acupuncture in infertile patients with severe oligoasthenozoospermia.

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In this first prospective, randomized, single-blind, placebo-controlled study, 28 infertile patients with severe oligoasthenozoospermia received acupuncture according to the principles of traditional Chinese medicine (TCM) and 29 infertile patients received placebo acupuncture. A significantly higher percentage of motile sperm (World Health Organization categories A-C), but no effect on sperm concentration, was found after acupuncture compared with placebo acupuncture.

J Matern Fetal Neonatal Med. 2009 Oct;22(10):843-8.

Acupuncture to initiate labor (Acumoms 2): a randomized, sham-controlled clinical trial.

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OBJECTIVE: To evaluate the efficacy of acupuncture for labor stimulation.

METHODS: Nulliparous women at 38 weeks or greater were randomized to traditional Chinese medicine (TCM) acupuncture, sham acupuncture, or usual care only groups. Acupuncture points LI4, SP6, BL32, and BL54 were needled bilaterally. The primary outcome was time from enrollment to delivery. Secondary outcomes included rates of spontaneous labor and cesarean delivery. Medical records were abstracted for maternal demographic, medical, and delivery outcome data. ANOVA, Student's t-test, Chi-square, and Kaplan-Meier statistics were used to compare groups.

RESULTS: Eighty-nine women were enrolled and randomized. Maternal age, gestational age, prior acupuncture experience, tobacco, alcohol and drug use, gravida, and history of gynecological surgery were similar among the groups. There were no statistically significant differences among groups for time from enrollment to delivery ($p=0.20$), rates of spontaneous labor ($p=0.66$), or rates of cesarean delivery ($p=0.37$). Rates of maternal and neonatal outcomes were not significantly different.

CONCLUSION: TCM acupuncture was not effective in initiating spontaneous labor or reducing the rate of cesarean delivery compared with sham acupuncture or usual medical care.

J Orofac Pain. 2009 Fall;23(4):353-9.

Randomized clinical trial of acupuncture for myofascial pain of the jaw muscles.

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AIMS: To evaluate the effectiveness of acupuncture in treating symptoms associated with myofascial pain of the jaw muscles.

METHODS: Twenty-eight subjects over the age of 18 and diagnosed with chronic myofascial pain of the jaw muscles were randomized to receive real (n = 16) or sham (n = 12) acupuncture. Prior to treatment, each subject clenched his or her teeth for 2 minutes. Acupuncture or sham acupuncture was then administered at the Hegu large intestine 4 (LI4) acupoint for 15 minutes. Real acupuncture was given by penetrating the needle through a sticky foam pad at the acupoint. Sham acupuncture was conducted by pricking the skin, without penetration, with a shortened, blunted acupuncture needle through a foam pad placed away from the acupoint. General head and neck pain ratings were obtained before and after treatment on a numerical rating scale. A mechanical pain stimulus on the masseter muscle was given before and after treatment and rated on a visual analog scale to measure pain tolerance level. Paired t tests were performed to detect significant changes in pain levels.

RESULTS: Subjects receiving real acupuncture experienced a significant reduction in jaw pain (P = .04), jaw/face tightness (P = .04), and neck pain (P = .04), and a significant increase in pain tolerance of the masseter muscle (P = .001). Subjects were not able to determine whether they received real or sham acupuncture (P = .69). No significant pain reductions were observed in the sham acupuncture group. **CONCLUSION:** A single acupuncture session using one acupoint at Hegu large intestine 4 significantly reduced most myofascial pain endpoints when compared to sham acupuncture.

Zhongguo Zhen Jiu. 2009 Oct;29(10):804-6.

Controlled study on therapeutic effects of electroacupuncture and modified electric convulsive therapy on catatonic schizophrenia

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OBJECTIVE: To evaluate the clinical therapeutic effect of electroacupuncture for treatment of catatonic schizophrenia.

METHODS: Eighty cases were randomly divided into an observation group and a control group, 40 cases in each group. The observation group was treated with electroacupuncture, Baihui (GV 20) and Taiyang (EXHN 5) were selected, once daily; the control group was treated with modified electric convulsive therapy (MECT), the treatment was given once every 2 days or 3 days, 14 to 21 days constituted one course in the two groups.

RESULTS: The markedly effective rate and total effective rate were 72.5% and 92.5% in the observation group, 77.5% and 97.5% in the control group, respectively, there was no significant difference between the two groups (both P>0.05).

CONCLUSION: The therapeutic effect of electroacupuncture is similar to that of MECT.

Zhongguo Zhen Jiu. 2009 Oct;29(10):799-803.

Clinical observation on acupuncture for treatment of paralytic strabismus

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OBJECTIVE: To compare therapeutic effects of acupuncture at local points of eye and western medicine on paralytic strabismus.

METHODS: One hundred cases were randomly divided into an acupuncture group and a medication group. The acupuncture group (58 cases) was treated with acupuncture at local points of eye, Jingming (BL 1), Tongziliao (GB 1), Shangming (Extra) etc. were selected; and the medication group (42 cases) was treated with oral administration of Methycobal and Vitamin B1. After treatment of 5 courses, the therapeutic effects in the two groups were observed.

RESULTS: The total effective rate of 94.8% in the acupuncture group was superior to that of 85.7% in the medication group (P<0.01); the therapeutic effects of the acupuncture group for treatment of oculomotor nerve and abducent nerve were significantly better than that of the medication group (P<0.05); the acupuncture group was better than the medication group in synoptophore examination results and improvement of rima oculi and pupil (P<0.01, P<0.05), the acupuncture group was superior to the medication group in improvement of the function of paralysis eye muscle, including medial rectus and lateral rectus except superior oblique (P<0.01, P<0.05).

CONCLUSION: Acupuncture on local points of eye is an effective therapy for paralytic strabismus.

Zhongguo Zhen Jiu. 2009 Oct;29(10):775-9.

Effects of electroacupuncture on in vitro fertilization-embryo transfer (IVF-ET) of patients with poor ovarian response.

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OBJECTIVE: To observe the effect of electroacupuncture therapy on oocyte quality and pregnancy outcome of patients with poor ovarian response or decreased reserve in the course of in vitro fertilization (IVF).

METHODS: Sixty cases accepting IVF-ET were randomly divided into an observation group and a control group, 30 cases in each group. The two groups were both treated with antagonist scheme for ovulation induction, and the electroacupuncture intervention was also added in the observation group, Guanyuan (CV 4), Taixi (KI 3), Sanyinjiao (SP 6) etc. were selected. The therapeutic effects in the two groups were compared after treatment.

RESULTS: There was no significant difference between the two groups before treatment. The symptoms of kidney deficiency in the observation group were significantly improved after treatment, and the levels of serum estradiol (E2), fertilization rate, oocyte maturation rate, good quality embryos rate, and implantation rate in the observation group were superior to those in the control group on human Chorionic Gonadotropin (hCG) injection day (all P<0.05); the levels of stem cell factor (SCF) in follicular fluid and serum in the observation group were significantly higher than those in the control group (both P<0.05). The pregnancy rate in the observation group was higher than that in the control group, and the abortion rate in the observation group was lower than that in the control group, but there was no significant difference between the two groups (both P>0.05).

CONCLUSION: Electroacupuncture therapy has a good clinical effect for IVF patients with poor ovarian reserve, and can improve oocyte quality and pregnancy outcome.

109. Birth. 2009 Sep;36(3):246-53.

Does acupuncture have a place as an adjunct treatment during pregnancy? A review of randomized controlled trials and systematic reviews.

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BACKGROUND: Complementary medicine has become popular throughout many Western countries and is widely used by women across all stages of their life cycle. Acupuncture is used by women during their pregnancy, and research suggests that acupuncture may be used as an adjunct to their existing conventional care. The aim of this paper was to summarize the evidence examining the effectiveness of acupuncture during pregnancy and birthing, and to discuss its role as an adjunct treatment.

METHODS: We conducted a systematic literature search using several electronic databases. We included all placebo-controlled randomized trials of parallel design, and systematic reviews that evaluated the role of acupuncture during pregnancy and birthing. A critical appraisal of clinical trials and systematic reviews was undertaken.

RESULTS: The summarized findings indicated a small but growing body of acupuncture research, with some evidence suggesting a benefit from acupuncture to treat nausea in pregnancy. Findings from the review also highlighted promising evidence for the effectiveness of acupuncture to manage back and pelvic pain, acupuncture-type interventions to induce change in breech presentation, and pain relief in labor. The methodological quality of recent trials has improved, and the quality of systematic reviews was high.

CONCLUSIONS: Interest is growing in the use of acupuncture to treat some complaints during pregnancy and childbirth, and evidence is beginning to consolidate that acupuncture may assist with the management of some complaints during pregnancy. However, definitive conclusions about its effectiveness cannot be reached and further research is justified.

Menopause. 2009 Sep-Oct;16(5):1065-73.

Acupuncture for vasomotor menopausal symptoms: a systematic review.

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OBJECTIVE: The aim of this study was to critically assess whether acupuncture therapy reduces vasomotor menopausal symptoms and to evaluate the adverse effects of acupuncture therapy on the basis of the results of randomized controlled trials (RCTs).

METHODS: Nineteen electronic databases, including English, Korean, Japanese, and Chinese databases, were systematically searched for RCTs in which acupuncture was used to reduce vasomotor menopausal symptoms before July 2008. There were no language restrictions. The methodological quality of the eligible studies was assessed using the categories provided by the Menstrual Disorders and Subfertility Review Group.

RESULTS: Eleven studies, which included a total of 764 individual cases, were systematically reviewed. The methodological quality of the trials varied substantially. Six trials compared acupuncture treatment to sham or placebo acupuncture. Only one study using a nonpenetrating placebo needle found a significant difference in the severity outcomes of hot flashes between groups (mean difference, 0.48; 95% CI, 0.05-0.91). Five studies reported a reduced frequency of hot flashes within groups; however, none found a significant difference between groups. An analysis of the outcomes of the trials that compared acupuncture with hormone therapy or oryzanol for reducing vasomotor symptoms showed that acupuncture was superior. Three RCTs reported minimal acupuncture-related adverse events.

CONCLUSIONS: There is no evidence from RCTs that acupuncture is an effective treatment in comparison to sham acupuncture for reducing menopausal hot flashes. Some studies have shown that acupuncture therapies are better than hormone therapy for reducing vasomotor symptoms. However, the number of RCTs compared with a nonpenetrating placebo control needle or hormone therapy was too small, and the methodological quality of some of the RCTs was poor. Further evaluation of the effects of acupuncture on vasomotor menopausal symptoms based on a well-controlled placebo trial is therefore warranted.

Neuroimage. 2009 Sep;47(3):1077-85.

Traditional Chinese acupuncture and placebo (sham) acupuncture are differentiated by their effects on mu-opioid receptors (MORs).

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Controversy remains regarding the mechanisms of acupuncture analgesia. A prevailing theory, largely unproven in humans, is that it involves the activation of endogenous opioid antinociceptive systems and mu-opioid receptors (MORs). This is also a neurotransmitter system that mediates the effects of placebo-induced analgesia. This overlap in potential mechanisms may explain the lack of differentiation between traditional acupuncture and either non-traditional or sham acupuncture in multiple controlled clinical trials. We compared both short- and long-term effects of traditional Chinese acupuncture (TA) versus sham acupuncture (SA) treatment on in vivo MOR binding availability in chronic pain patients diagnosed with fibromyalgia (FM). Patients were randomized to receive either TA or SA treatment over the course of 4 weeks. Positron emission tomography (PET) with (11)C-carfentanil was performed once during the first treatment session and then repeated a month later following the eighth treatment. Acupuncture therapy evoked short-term increases in MOR binding potential, in multiple pain and sensory processing regions including the cingulate (dorsal and subgenual), insula, caudate, thalamus, and amygdala. Acupuncture therapy also evoked long-term increases in MOR binding potential in some of the same structures including the cingulate (dorsal and perigenual), caudate, and amygdala. These short- and long-term effects were absent in the sham group where small reductions were observed, an effect more consistent with previous placebo PET studies. Long-term increases in MOR BP following TA were also associated with greater reductions in clinical pain. These findings suggest that divergent MOR processes may mediate clinically relevant analgesic effects for acupuncture and sham acupuncture.

Neuroimage. 2009 Sep;47(3):1066-76.

An fMRI study on the interaction and dissociation between expectation of pain relief and acupuncture treatment.

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It is well established that expectation can significantly modulate pain perception. In this study, we combined an expectancy manipulation model and fMRI to investigate how expectation can modulate acupuncture treatment. Forty-eight subjects completed the study. The analysis on two verum acupuncture groups with different expectancy levels indicates that expectancy can significantly influence acupuncture analgesia for experimental pain. Conditioning positive expectation can amplify acupuncture analgesia as detected by subjective pain sensory rating changes and objective fMRI signal changes in response to calibrated noxious stimuli. Diminished positive expectation appeared to inhibit acupuncture analgesia. This modulation effect is spatially specific, inducing analgesia exclusively in regions of the body where expectation is focused. Thus, expectation should be used as an important covariate in future studies evaluating acupuncture efficacy. In addition, we also observed dissociation between subjective reported analgesia and objective fMRI signal changes to calibrated pain in the analysis across all four groups. We hypothesize that as a

peripheral-central modulation, acupuncture needle stimulation may inhibit incoming noxious stimuli; while as a top-down modulation, expectancy (placebo) may work through the emotional circuit.

Pharmacopsychiatry. 2009 Sep;42(5):182-8.

Imbalance between pro- and anti-inflammatory cytokines, and between Th1 and Th2 cytokines in depressed patients: the effect of electroacupuncture or fluoxetine treatment.

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BACKGROUND: An increase in inflammatory response and an imbalance between T-helper (Th) 1 and 2 functions have been implicated in major depression. The aims of the present study were to 1) study the relationship between pro- and anti-inflammatory cytokines and between Th1 and Th2 produced cytokines in depressed patients and 2) evaluate and compare the effect of treatments with electroacupuncture (EA) and fluoxetine on these cytokines.

METHODS: 95 outpatients with major depressive disorder were treated for 6 weeks with EA, fluoxetine or placebo. Hamilton Depression Rating Scale (HDRS) and Clinical Global Impression (CGI) were used to assess severity and therapeutic effects. 30 volunteers served as controls. Serum cytokine concentrations were measured by ELISA.

RESULTS: Increased proinflammatory cytokine interleukin (IL)-1beta and decreased anti-inflammatory cytokine IL-10 were found in the depressed patients. By contrast, Th1 produced proinflammatory cytokines, tumor necrosis factor (TNF)-alpha and interferon (IFN)-gamma were decreased, and Th2 produced cytokine IL-4 was significantly increased in depressed patients. The ratio of IFN/IL-4 was also increased. Both acupuncture and fluoxetine treatments, but not the placebo, reduced IL-1beta concentrations in responders. However, only acupuncture attenuated TNF-alpha concentration and INF-gamma/IL-4 ratio towards the control level. **DISCUSSION:** These results suggest that an imbalance between the pro- and anti-inflammatory cytokines (IL-1 and IL-10), and between Th1 and Th2 cytokines (INF-gamma or TNF-alpha and IL-4) occurred in untreated depressed patients. Both EA and fluoxetine had an anti-inflammatory effect by reducing IL-1beta. EA treatment also restored the balance between Th1 and Th2 systems by increasing TNF-alpha and decreasing IL-4. Georg Thieme Verlag KG Stuttgart - New York.

Zhongguo Zhen Jiu. 2009 Sep;29(9):714-6.

Observation on therapeutic effect of acupuncture for treatment of optic atrophy

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OBJECTIVE: To search for an effective therapy for patients with optic atrophy to improve the visual function.

METHODS: Thirty-eight cases (fifty-four affected eyes) of optic atrophy were treated with acupuncture, local points combined with points selected according to syndrome differentiation were used, Jingming (BL 1), Cuanzhu (BL 2), and Fengchi (GB 20) were selected as main points, the therapeutic effects were evaluated after 2 courses of treatment, and variation of the indexes in patients such as vision, visual field and visual evoked potential were observed before and after treatment.

RESULTS: The total effective rate was 83.3%, the vision, visual acuity, and the amplitude of P100-wave were obviously improved after treatment (all $P < 0.05$).

CONCLUSION: Acupuncture can improve the visual function of patients with optic atrophy, and can be a effective therapy.

Trials. 2009 Aug 23;10:75.

Acupuncture as a treatment for functional dyspepsia: design and methods of a randomized controlled trial.

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BACKGROUND: Acupuncture is widely used in China to treat functional dyspepsia (FD). However, its effectiveness in the treatment of FD, and whether FD-specific acupoints exist, are controversial. So this study aims to determine if acupuncture is an effective treatment for FD and if acupoint specificity exists according to traditional acupuncture meridians and acupoint theories.

DESIGN: This multicenter randomized controlled trial will include four acupoint treatment groups, one non-acupoint control group and one drug (positive control) group. The four acupoint treatment groups will focus on: (1) specific acupoints of the stomach meridian; (2) non-specific acupoints of the stomach meridian; (3) specific acupoints of alarm and transport points; and (4) acupoints of the gallbladder meridian. These four groups of acupoints are thought to differ in terms of clinical efficacy, according to traditional acupuncture meridians and acupoint theories. A total of 120 FD patients will be included in each group. Each patient will receive 20 sessions of acupuncture treatment over 4 weeks. The trial will be conducted in eight hospitals located in three centers of China. The primary outcomes in this trial will include differences in Nepean Dyspepsia Index scores and differences in the Symptom Index of Dyspepsia before randomization, 2 weeks and 4 weeks after randomization, and 1 month and 3 months after completing treatment.

DISCUSSION: The important features of this trial include the randomization procedures (controlled by a central randomization system), a standardized protocol of acupuncture manipulation, and the fact that this is the first multicenter randomized trial of FD and acupuncture to be performed in China. The results of this trial will determine whether acupuncture is an effective treatment for FD and whether using different acupoints or different meridians leads to differences in clinical efficacy.

BMC Complement Altern Med. 2009 Aug 12;9:31.

Acupuncture in acute herpes zoster pain therapy (ACUZoster) - design and protocol of a randomised controlled trial.

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BACKGROUND: Acute herpes zoster is a prevalent condition. One of its major symptoms is pain, which can highly influence patient's quality of life. Pain therapy is limited. Acupuncture is supposed to soften neuropathic pain conditions and might therefore act as a therapeutic alternative. Objective of the present study is to investigate whether a 4 week semi-standardised acupuncture is non-inferior to sham laser acupuncture and the anticonvulsive drug gabapentine in the treatment of pain associated with herpes zoster.

METHODS/DESIGN: Three-armed, randomised, placebo-controlled trial with a total follow-up time of 6 months. Up to estimated 336 patients (interim analyses) with acute herpes zoster pain (VAS > 30 mm) will be randomised to one of three groups (a) semi-standardised acupuncture (168 patients); (b) gabapentine with individualised dosage between 900-3600 mg/d (84 patients); (c) sham laser acupuncture. Intervention takes place over 4 weeks, all patients will receive analgesic therapy (non-opioid analgesics: metamizol or paracetamol and opioids: tramadol or morphine). Therapy phase includes 4 weeks in which group (a) and

(c) consist of 12 sessions per patient,(b) visits depend on patients needs. Main outcome measure is to assess the alteration of pain intensity before and 1 week after treatment sessions (visual analogue scale VAS 0-100 mm). Secondary outcome measure are: alteration of pain intensity and frequency of pain attacks; alteration of different aspects of pain evaluated by standardised pain questionnaires (NPI, PDI, SES); effects on quality of life (SF 36); analgesic demand; alteration of sensoric perception by systematic quantitative sensory testing (QST); incidence of postherpetic neuralgia; side effects and cost effectiveness. Credibility of treatments will be assessed.

DISCUSSION: This study is the first large-scale randomised placebo controlled trial to evaluate the efficacy of acupuncture compared to gabapentine and sham treatment and will provide valuable new information about the clinical and physiological effects of acupuncture and gabapentine in the treatment of acute herpes zoster pain. The study has been pragmatically designed to ensure that the study findings can be implemented into clinical practice if acupuncture can be shown to be an effective treatment strategy in acute herpes zoster pain.

Chin Med J (Engl). 2009 Aug 5;122(15):1743-8.

Effects of acupuncture on post-cesarean section pain.

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BACKGROUND: Post-operation pain is a very subjective phenomenon. The aim of this study was to find out the effects of acupuncture or electro-acupuncture on post-cesarean pain.

METHODS: Sixty women, who had had spinal anesthesia during cesarean section at the Department of Obstetrics of China Medical University Hospital, were randomly assigned to the control group, the acupuncture group, and the electro-acupuncture group. After the operation, we applied subjects with acupuncture or electro-acupuncture on the bilateral acupuncture point, San Yin Jiao (Sp6), and the patient controlled analgesia (PCA). The first time of requesting morphine, the frequency of PCA demands in 24 hours, and the doses of PCA used were recorded double blindly. In addition, monitoring the subjects' vital signs, the opioid-related side effects, and the pain scores was done.

RESULTS: The results showed that the acupuncture group and the electro-acupuncture group could delay the time of requesting morphine up to 10 - 11 minutes when compared with the control group. The total dose of PCA used within the first 24 hours was 30% - 35% less in the acupuncture group and the electro-acupuncture group when compared with the control group, which was indicated in statistical significance. However, there was no significant difference between the acupuncture group and the electro-acupuncture group. The electro-acupuncture group's and the acupuncture group's pain scores were lower than the control group's within the first 2 hours. Both were statistically significant. However, two hours later, there were no significant differences of the visual analogue scale (VAS) scores between either of the treatment groups and the control group. Finally, the incidence of opioid-related side effects, such as dizziness, was less in the acupuncture group and electro-acupuncture group than in the control group.

CONCLUSIONS: This study shows that the application of acupuncture and electro-acupuncture could definitely delay the time of requesting pain relief medication after cesarean section and decrease the PCA doses used within the first 24 hours.

Alcohol Clin Exp Res. 2009 Aug;33(8):1305-13.

Acupuncture for alcohol dependence: a systematic review.

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BACKGROUND: Acupuncture has been used in the treatment of substance-related disorders for the past 30 years. However, a systematic review to assess the effect of various types of acupuncture for alcohol dependence has not yet been performed. The present systematic review assessed the results of randomised controlled trials (RCTs).

METHODS: Nineteen electronic databases, including English, Korean, Japanese, and Chinese databases, were systematically searched for RCTs of acupuncture for alcohol dependence up to June 2008 with no language restrictions. The methodological qualities of eligible studies were assessed using the criteria described in the Cochrane Handbook.

RESULTS: Eleven studies, which comprised a total of 1,110 individual cases, were systematically reviewed. Only 2 of 11 trials reported satisfactorily all quality criteria. Four trials comparing acupuncture treatment and sham treatments reported data for alcohol craving. Three studies reported that there were no significant differences. Among 4 trials comparing acupuncture and no acupuncture with conventional therapies, 3 reported significant reductions. No differences between acupuncture and sham treatments were found for completion rates (Risk Ratio = 1.07, 95% confidence interval, CI = 0.91 to 1.25) or acupuncture and no acupuncture (Risk Ratio = 1.15, 95% CI = 0.79 to 1.67). Only 3 RCTs reported acupuncture-related adverse events, which were mostly minimal.

CONCLUSIONS: The results of the included studies were equivocal, and the poor methodological quality and the limited number of the trials do not allow any conclusion about the efficacy of acupuncture for treatment of alcohol dependence. More research and well-designed, rigorous, and large clinical trials are necessary to address these issues.

J Altern Complement Med. 2009 Aug;15(8):905-9.

Acupuncture in the treatment of diabetic bladder dysfunction.

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OBJECTIVE: The objective of this study was to investigate the effects of acupuncture on diabetic bladder dysfunction (DBD).

METHODS: This study compared 30 cases in the acupuncture group with 15 cases in the sham acupuncture group (n = 45 total). The effects of acupuncture were observed on urodynamic measurements, as well as a variety of symptoms associated with DBD.

RESULTS: In the acupuncture group, five of the six urodynamic measures (maximal detrusor pressure, bladder compliance, maximal bladder capacity, bladder volume at desire to void and urge to void) demonstrated significant improvement (p < 0.05, 0.01) over the 15-day treatment period. Only one measure (bladder volume at urge to void) significantly improved (p < 0.05) in the sham acupuncture group. There were significant differences after therapy in four measures (bladder compliance, maximal bladder capacity, bladder volume at desire to void, and urge to void) between the groups (p < 0.05, 0.01). A significant difference of the changes in symptoms compared with pretreatment in the acupuncture group was observed (p < 0.05, 0.01). In 25 subjects in the acupuncture group, incontinence improved from 2.4 to 1.4. In the sham acupuncture group, incontinence deteriorated from 2.2 to 2.3.

CONCLUSIONS: Our pilot study has provided evidence that acupuncture may be clinically useful for the radical treatment of DBD.

J Altern Complement Med. 2009 Aug;15(8):837-44.

Combination of acupuncture and fluoxetine for depression: a randomized, double-blind, sham-controlled trial.

Zhang WJ, Yang XB, Zhong BL.

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BACKGROUND AND OBJECTIVE: The current pharmacological management of depression remains limited. The aim of this study was to assess the efficacy and safety of acupuncture in combination with fluoxetine as an intervention for major depressive disorder (MDD).

SUBJECTS AND INTERVENTIONS: A total of 80 patients with MDD (DSM-IV) were randomized to two groups: VA group received verum acupuncture, 10 mg/day fluoxetine and placebo; SA group received sham acupuncture and 20-30 mg/day fluoxetine. Acupuncture was applied 5 times a week over a period of 6 weeks.

DESIGN AND SETTINGS: A randomized, double-blind, double-dummy, sham-controlled trial was conducted in Dehong Prefecture Traditional Chinese Medicine Hospital.

OUTCOME MEASURES: All subjects were assessed in a double-blind fashion at four time points (i.e., baseline, the end of the second, fourth, and sixth week of treatment. The primary outcome measure was the therapeutic response rate based on the rate of total score change in the 17-item Hamilton Rating Scale for Depression (HRSD). Anxious symptoms, antidepressant side-effects, and acupuncture adverse effects were also measured additionally.

RESULTS: At the end of the treatment period, the therapeutic response rates were not statistically significant between groups (80.0% for the VA group and 77.5% for the SA group, respectively). No statistical significance was found between the 2 groups in the rate of HRSD score change ($z = 1.80$, $p = 0.07$), but patients in the VA group showed better improvement than the SA group in symptoms of anxiety and side-effects of antidepressant ($z = 2.60$, $p = 0.01$ and $z = 23.60$, $p < 0.001$, respectively). The overall rate of adverse events due to acupuncture was 8.75%.

CONCLUSIONS: Additionally applied standardized acupuncture to low-dose fluoxetine for depression is as effective as a recommended dose of fluoxetine treatment. Depressive patients with severe anxious symptoms and/or intolerable side-effects of antidepressants can benefit from it.

Zhen Ci Yan Jiu. 2009 Aug;34(4):262-6.

Effect of acupuncture and moxibustion of Shu- and Mu-acupoints on the quality of life in patients chronic superficial gastritis

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OBJECTIVE: To observe the therapeutic effect of electroacupuncture plus moxibustion (EA-Moxi) of combined Shu- and Mu-acupoints on the symptoms and quality of daily life in chronic superficial gastritis (CSG) patients.

METHODS: Sixty cases were randomly divided into EA-Moxi group ($n = 30$) and medication group ($n = 30$). For patients of the former group, EA (50 Hz, 3 mA) was applied to Zhongwan (CV 12), bilateral Weishu (BL 21), bilateral Zusanli (ST 36), in combination with bilateral Ganshu (BL 18) and Qimen (LR 14) for patients with liver-stomach disharmony syndrome, and with moxibustion of Zhongwan (CV 12), bilateral Weishu (BL 21), bilateral Zusanli (ST 36), Pishu (BL 20) and Zhangmen (LR 13) for those with spleen-stomach deficiency syndrome. The treatment was administered once a day, five days a week for 4 weeks. The patients of medication group were treated with Omeperazole (20 mg, qd.) capsules. The total course of treatment was 4 weeks. Clinical therapeutic effects were evaluated according to some related standards, and the quality of life was assessed by SF-36 questionnaire.

RESULTS: After the treatment, of the 30 cases in EA-Moxi and medication groups, 6 (20.0%) and 3 (10.0%) were cured, 16 (53.3%) and 8 (26.7%) experienced marked improvement, 5 (16.7%) and 9 (30.0%) were effective, and 3 (10.0%) and 10 (33.3%) failed, with the effective rates being 90.0% and 66.7% respectively. The difference of the effective rates between two groups was significant ($P < 0.05$). Self-comparison showed a marked improvement in the quality of life including physical function (PF), role physical (RP), bodily pain (BP), general health (GH), vitality (VT), social function (SF), role emotion (RE) and mental health (MH) in both groups after the treatment. The scores of health utility (HU), RP and RE in EA-Moxi group were evidently higher than those of medication group ($P < 0.05$, $P < 0.01$).

CONCLUSION: EA-Moxi of combined Shu- and Mu-acupoints can effectively relieve CSG patients' clinical symptoms and their quality of life.

Zhongguo Zhen Jiu. 2009 Aug;29(8):623-5.

Effect of acupuncture combined with TDP on estrogen and bone metabolism in postmenopausal patients with deficiency of liver and kidney syndrome

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OBJECTIVE: To observe the clinical effect of acupuncture combined with TDP for treatment of postmenopausal patients with deficiency of liver and kidney syndrome and to explore its mechanism.

METHODS: One hundred and twelve cases were randomly divided into an acupuncture group and a medication group, 56 cases in each group. The acupuncture group was treated with acupuncture combined with TDP, Shenshu (BL 23), Mingmen (GV 4) and Guanyuan (CV 4) were selected as main points; the medication group was treated with oral administration of Nylestriol and Oryzanol. The therapeutic effects were evaluated after treatment of 3 months in the two groups, and the changes of estrogen, bone mineral density and endometrium of patients were observed before and after treatment.

RESULTS: The total effective rate of 94.6% in acupuncture group was superior to 75.0% in medication group ($P < 0.01$), the acupuncture group was better than the medication group in increasing bone mineral density and decreasing the endometrial thickness ($P < 0.05$, $P < 0.01$), the medication group was better than the acupuncture group in decreasing the levels of serum follicular stimulating hormone (FSH) and luteinizing hormone (LH) and increasing the estradiol (E2) level (all $P < 0.01$).

CONCLUSION: The clinical effect of acupuncture combined with TDP for treatment of postmenopausal patients with deficiency of liver and kidney syndrome is significant, and it can increase bone mineral density, decrease endometrial thickness and obviously regulate the estrogen level.

Trials. 2009 Jul 14;10:54.

Acupuncture for persistent allergic rhinitis: a multi-centre, randomised, controlled trial protocol.

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BACKGROUND: Allergic rhinitis is one of the most common health complaints worldwide. Complementary and alternative medical approaches have been employed to relieve allergic rhinitis symptoms and to avoid the side effects of conventional medication. Acupuncture has been widely used to treat patients with allergic rhinitis, but the available evidence of its effectiveness is insufficient. Our objective is to evaluate the effectiveness of acupuncture in patients in Korea and China with persistent allergic rhinitis compared to sham acupuncture treatment or waitlist control.

METHODS: This study consists of a multi-centre (two centres in Korea and two centres in China), randomised, controlled trial with three parallel arms (active acupuncture, sham acupuncture, and waitlist group). The active acupuncture and sham acupuncture groups will receive real or sham acupuncture treatment, respectively, three times per week for a total of 12 sessions over four weeks. Post-treatment follow-up will be performed a month later to complement these 12 acupuncture sessions. Participants in the waitlist group will not receive real or sham acupuncture treatments during this period but will only be required to keep recording their symptoms in a daily diary. After four weeks, the same treatment given to the active acupuncture group will be provided to the waitlist group.

DISCUSSION: This trial will provide evidence for the effectiveness of acupuncture as a treatment for persistent allergic rhinitis. The primary outcome between groups is a change in the self-reported total nasal symptom score (i.e., nasal obstruction, rhinorrhea, sneezing, and itching) from baseline at the fourth week. Secondary outcome measures include the Rhinitis Quality of Life Questionnaire score and total non-nasal symptom score (i.e., headache, itching, pain, eye-drooping). The quantity of conventional relief medication used during the follow-up period is another secondary outcome measure.

Breast Cancer Res Treat. 2009 Jul;116(2):311-6.

Acupuncture for the treatment of hot flashes in breast cancer patients, a randomized, controlled trial.

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Acupuncture has been used to treat the problem of hot flashes in healthy postmenopausal women. The object of this study was to investigate the efficacy of acupuncture in women with breast cancer suffering from hot flashes as a result of anti-oestrogen medication. In a prospective, controlled trial, 59 women suffering from hot flashes following breast cancer surgery and adjuvant oestrogen-antagonist treatment (Tamoxifen) were randomized to either 10 weeks of traditional Chinese acupuncture or sham acupuncture (SA). Mean number of hot flashes at day and night were recorded prior to treatment, during the treatment period as well as during the 12 weeks following treatment. A validated health score (Kupperman index) was conducted at baseline, at the end of the treatment period and at 12 weeks following treatment. During the treatment period mean number of hot flashes at day and night was significantly reduced by 50 and almost 60%, respectively from baseline in the acupuncture group, and was further reduced by 30% both at day and night during the next 12 weeks. In the sham acupuncture group a significant reduction of 25% in hot flashes at day was seen during treatment, but was reversed during the following 12 weeks. No reduction was seen in hot flashes at night. Kupperman index was reduced by 44% from baseline to the end of the treatment period in the acupuncture group, and largely maintained 12 weeks after treatment ended. No corresponding changes were seen in the sham acupuncture group. Acupuncture seems to provide effective relief from hot flashes both day and night in women operated for breast cancer, treated with Tamoxifen. This treatment effect seems to coincide with a general health improvement measured with the validated Kupperman index.

Contemp Clin Trials. 2009 Jul;30(4):347-53.

A randomized controlled trial of acupuncture and moxibustion to treat Bell's palsy according to different stages: design and protocol.

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Acupuncture to treat Bell's palsy is one of the most commonly used methods in China. There are a variety of acupuncture treatment options to treat Bell's palsy in clinical practice. Since Bell's palsy has three different path-stages (acute stage, resting stage and restoration stage), so whether acupuncture is effective in the different path-stages and which acupuncture treatment is the best method are major issues in acupuncture clinical trials about Bell's palsy. In this article, we report the design and protocol of a large sample multi-center randomized controlled trial to treat Bell's palsy with acupuncture. There are five acupuncture groups, with four according to different path-stages and one not. In total, 900 patients with Bell's palsy are enrolled in this study. These patients are randomly assigned to receive one of the following four treatment groups according to different path-stages, i.e. 1) staging acupuncture group, 2) staging acupuncture and moxibustion group, 3) staging electro-acupuncture group, 4) staging acupuncture along yangming musculature group or non-staging acupuncture control group. The outcome measurements in this trial are the effect comparison achieved among these five groups in terms of House-Brackmann scale (Global Score and Regional Score), Facial Disability Index scale, Classification scale of Facial Paralysis, and WHOQOL-BREF scale before randomization (baseline phase) and after randomization. The result of this trial will certify the efficacy of using staging acupuncture and moxibustion to treat Bell's palsy, and to approach a best acupuncture treatment among these five different methods for treating Bell's palsy.

Gastroenterol Nurs. 2009 Jul-Aug;32(4):243-55.

Symptom management for irritable bowel syndrome: a pilot randomized controlled trial of acupuncture/moxibustion.

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The purpose of this pilot study was to assess the effect of an individualized traditional Chinese medicine (TCM) acupuncture and moxibustion (Acu/Moxa) treatment on symptom control in patients with irritable bowel syndrome (IBS) in a preliminary, randomized, sham/placebo-controlled trial. Twenty-nine men and women with IBS were randomized to either individualized Acu/Moxa (treatment group) or sham/placebo Acu/Moxa (control group). All subjects were assessed by a diagnostic acupuncturist for a TCM evaluation and individualized point prescription. Only those subjects assigned to the experimental group received the individually prescribed treatment. The diagnostic acupuncturist did not administer treatments and was blind to treatment assignments. All subjects kept a symptom diary for the duration of the study, enabling measurement of symptom frequency, severity, and improvement. The Clinical Global Impression Scale was administered preintervention to establish baseline severity and on completion of the 4-week, eight-session treatment intervention. After 4 weeks of twice-weekly Acu/Moxa treatment, average daily abdominal pain/discomfort improved whereas the control group showed minimal reduction. This between-group difference adjusted for baseline difference was statistically significant. The intestinal gas, bloating, and stool consistency composite score showed a similar pattern of improvement. The findings indicate that Acu/Moxa treatment shows promise in the area of symptom management for IBS.

J Altern Complement Med. 2009 Jul;15(7):745-53.

Acupuncture for chemotherapy-induced neutropenia in patients with gynecologic malignancies: a pilot randomized, sham-controlled clinical trial.

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OBJECTIVES: The objective of this study was to investigate the effect of acupuncture administered during myelosuppressive chemotherapy on white blood cell (WBC) count and absolute neutrophil count (ANC) in patients with ovarian cancer.

DESIGN: This study is a pilot, randomized, sham-controlled clinical trial. Patients received active acupuncture versus sham acupuncture while undergoing chemotherapy. A standardized acupuncture protocol was employed with manual and electrostimulation. The frequency of treatment was 2-3 times per week for a total of 10 sessions, starting 1 week before the second cycle of chemotherapy.

SETTING: The setting was two outpatient academic centers for patients with cancer.

SUBJECTS: Twenty-one (21) newly diagnosed and recurrent ovarian cancer patients were the subjects. **OUTCOME MEASURES:** WBC count, ANC, and plasma granulocyte colony-stimulating factor (G-CSF) were assessed weekly.

RESULTS: The median leukocyte value in the acupuncture arm at the first day of the third cycle of chemotherapy was significantly higher than in the control arm after adjusting for baseline value (8600 cells/microL, range: 4800-12,000 versus 4400 cell/microL, range: 2300-10,000) ($p = 0.046$). The incidence of grade 2-4 leukopenia was less in the acupuncture arm than in the sham arm (30% versus 90%; $p = 0.02$). However, the median leukocyte nadir, neutrophil nadir, and recovering ANC were all higher but not statistically significantly different ($p = 0.116-0.16$), after adjusting for baseline differences. There were no statistically significant differences in plasma G-CSF between the two groups.

CONCLUSIONS: We observed clinically relevant trends of higher WBC values during one cycle of chemotherapy in patients with ovarian cancer, which suggests a potential myeloprotective effect of acupuncture. A larger trial is warranted to more definitively determine the efficacy of acupuncture on clinically important outcomes of chemotherapy-induced neutropenia.

J Altern Complement Med. 2009 Jul;15(7):759-64.

Acupuncture for Bell's palsy.

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OBJECTIVES: The objectives of this study were to examine the efficacy of acupuncture in hastening recovery and reducing long-term morbidity from Bell's palsy.

METHODS: We searched the Cochrane Neuromuscular Disease Group Trials Register, MEDLINE (January 1966-April 2006), EMBASE (January 1980-April 2006), LILACS (January 1982-April 2006), and the Chinese Biomedical Retrieval System (January 1978-April 2006) for randomized controlled trials using "Bell's palsy" and its synonyms, "idiopathic facial paralysis" or "facial palsy" as well as search terms including "acupuncture." Chinese journals in which we thought we might find randomized controlled trials or controlled clinical trials relevant to our study were hand searched. We reviewed the bibliographies of the randomized trials and contacted the authors and known experts in the field to identify additional published or unpublished data. We included all randomized or quasi-randomized controlled trials involving acupuncture in the treatment of Bell's palsy, irrespective of any language restrictions. Two review authors identified potential articles from the literature search and extracted data independently using a data extraction form. The assessment of methodological quality included allocation concealment, patient blinding, differences at baseline of the experimental groups, and completeness of follow-up. Two (2) review authors assessed quality independently. All disagreements were resolved by discussion between the review authors.

RESULTS: Six (6) studies including a total of 537 participants met the inclusion criteria. Five (5) of them used acupuncture while another one used acupuncture combined with drugs. No trials reported on the outcomes specified for this review. Harmful side-effects were not reported in any of the trials. Flaws in study design or reporting (particularly uncertain allocation concealment and substantial loss to follow-up) and clinical differences between trials prevented conclusions about the efficacy of acupuncture.

CONCLUSIONS: The quality of the included trials was inadequate to allow any conclusion about the efficacy of acupuncture. More research with high-quality trials is needed.

Zhongguo Zhen Jiu. 2009 Jul;29(7):561-4.

Study of the relationship between the acupoints of Zhongzhu (TE 3), Yanglingquan (GB 34) and their corresponding cortical areas with the functional MRI

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OBJECTIVE: Using the functional magnetic resonance imaging (fMRI) to observe the distributed characteristic of excited cerebral cortical areas that induced by acupuncture-stimulating the Zhongzhu (TE 3) of the meridian of Hand-Shaoyang and Yanglingquan (GB 34) of the meridian of Foot-Shaoyang, and investigate the central neural mechanism on the effect of meridians and acupoints.

METHODS: Forty-two right handed healthy volunteers were randomly divided into Zhongzhu (TE 3) group and Yanglingquan (GB 34) group. The functional cortical changes during acupuncture-stimulating the Zhongzhu (TE 3) and Yanglingquan (GB 34) were successively scanned with fMRI, and the effected areas were determined through analysing the obtained data with SPM2 software.

RESULTS: The main excited areas were bilateral frontal lobes, temporal lobes, cerebellum and occipital lobes successively in Zhongzhu (TE 3) group, and bilateral occipital lobes, cerebellum, frontal lobes and temporal lobes in Yanglingquan (GB 34) group in contrast.

CONCLUSION: Acupuncture-stimulating both Zhongzhu (TE 3) and Yanglingquan (GB 34). can excite bilateral acoustic, visual and somatomotor cortices, which might be the central neural basis for clinical treatment on related diseases.

Zhongguo Zhen Jiu. 2009 Jul;29(7):517-20.

Effects of different acupuncture treatment on mean blood flow velocity of middle cerebral artery on the affected side and rehabilitation of hemiparalysis caused by cerebral infarction

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OBJECTIVE: To observe the effects of two different acupuncture treatment on cerebral blood flow velocity and early rehabilitation of hemiparalysis caused by cerebral infarction.

METHODS: Eighty patients were randomly divided into an alternate acupuncture group (n = 40) and a routine acupuncture group (n = 40). Both of the groups were treated with routine neurology medicine and application of good limb position combined with acupuncture. The patients in the alternate acupuncture group were treated by opposing needling and non-opposing needling, i.e. acupuncture at acupoints on both the healthy and affected sides alternately, twice each day, respectively. The routine acupuncture group was treated by acupuncture at the affected side, once daily. Scores of Scandinavian Stroke Scale (SSS) were evaluated before and after treatment in the two groups, and the mean blood flow velocity of middle cerebral artery (MCA) on the affected side was monitored during two different acupuncture treatment by using Transcranial Doppler (TCD).

RESULTS: The cured and markedly effective rate was 65.0% in the alternate acupuncture group and 37.5% in the routine acupuncture group with a significant difference between the two groups (P < 0.01). After treatment, the SSS score in the alternate acupuncture group was significantly lower than that in the routine acupuncture group (P < 0.01). The mean blood flow velocity of MCA during two different acupuncture treatment was both decreased significantly (both P < 0.05) and the mean blood flow velocity of MCA before the last treatment was decreased significantly in the alternate acupuncture group than those in the routine acupuncture group (P < 0.05).

CONCLUSION: The therapeutic effect of the alternate acupuncture program for hemiparalysis caused by cerebral infarction is superior to that of the routine acupuncture program. It is suggested that the mechanism of acupuncture in treating hemiparalysis caused by cerebral infarction is to dilate cerebral blood vessels and improve cerebral perfusion.

Headache. 2009 Jun;49(6):805-16.

Acupuncture for treating acute attacks of migraine: a randomized controlled trial.

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OBJECTIVE: To discuss the results of a multicenter randomized controlled trial of the efficacy of verum acupuncture in treating acute migraine attacks. **BACKGROUND:** Acupuncture has been used in China for centuries to treat migraine headache. Convincing evidence of its efficacy in alleviating pain, however, has been inadequate to date.

METHODS: A total of 218 patients with migraine were recruited for the study; 180 met the inclusion criteria; 175 completed the callback process and were randomized into 3 groups. One group received verum acupuncture while subjects in the other 2 groups were treated with sham acupuncture. Each patient received 1 session of treatment and was observed over a period of 24 hours. The main outcome measure was the differences in visual analog scale (VAS) scores before treatment and 0.5, 1, 2, and 4 hours after treatment.

RESULTS: Significant decreases in VAS scores from baseline were observed in the fourth hour after treatment when VAS was measured in the patients who received either verum acupuncture or sham acupuncture (P < .05). The VAS scores in the fourth hour after treatment decreased by a median of 1.0 cm, 0.5 cm, and 0.1 cm in the verum acupuncture group, sham acupuncture group 1, and sham acupuncture group 2, respectively. Similarly, there was a significant difference in the change in VAS scores from baseline in the second hour after treatment among the 3 groups (P = .006). Moreover, at the second hour after treatment, only patients treated with verum acupuncture showed significant decreases in VAS scores from baseline by a median of 0.7 cm (P < .001). Significant differences were observed in pain relief, relapse, or aggravation within 24 hours after treatment as well as in the general evaluations among the 3 groups (P < .05). Most patients in the acupuncture group experienced complete pain relief (40.7%) and did not experience recurrence or intensification of pain (79.6%).

CONCLUSION: Verum acupuncture treatment is more effective than sham acupuncture based on either Chinese or Western nonacupoints in reducing the discomfort of acute migraine. Verum acupuncture is also clearly effective in relieving pain and preventing migraine relapse or aggravation. These findings support the contention that there are specific physiological effects that distinguish genuine acupoints from nonacupoints.

J Altern Complement Med. 2009 Jun;15(6):613-8.

Efficacy of acupuncture as a treatment for chronic shoulder pain.

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OBJECTIVES: The aim of this study was to evaluate the efficacy of acupuncture as a treatment for chronic shoulder pain and to compare the efficacy of individualized acupuncture to fixed, standard point acupuncture treatment.

DESIGN: The study was a single-blind randomized, controlled trial.

SETTINGS/LOCATION: The study was conducted in an outpatient rheumatology clinic at the VA Medical Center of Philadelphia.

SUBJECTS: The participants were adults with shoulder pain for at least 8 weeks with a diagnosis of osteoarthritis or rotator cuff tendonitis and a total Shoulder Pain and Disability Index (SPADI) score of > or =30.

INTERVENTIONS: Thirty-one (31) subjects were randomized to one of three treatment groups: individualized acupuncture points according to the approaches of Traditional Chinese Medicine; fixed, standard acupuncture points conventionally used for shoulder pain; and sham nonpenetrating acupuncture. Subjects received 12 treatments over 6 weeks and were reassessed using the SPADI at the end of the 6 weeks. Outcome measures: The primary outcome evaluated was the mean change in total SPADI score in each group from baseline to 6 weeks.

RESULTS: After 6 weeks of treatment, the mean total SPADI score improved in all three groups, but the change was clinically significant (> or =10 points) only in groups 1 and 2 (-20.3 and -20.4, respectively, versus -6.5 in group 3). The treatment effects of groups 1 and 2 compared to the sham acupuncture group were -13.8 (95% confidence interval: -2.2 to -25.4, p < 0.015) and -13.9 (-2.0 to -25.8, p < 0.013), respectively. There was no difference between the individualized acupuncture and standardized acupuncture treatments.

CONCLUSIONS: Acupuncture may be an effective treatment for chronic shoulder pain. There may be no difference in efficacy between individualized and standardized acupuncture treatment. This suggests that the use of standard points may make treatment easier for patient care and for further research studies.

J Tradit Chin Med. 2009 Jun;29(2):83-6.

Depressive neurosis treated by acupuncture for regulating the liver—a report of 176 cases.

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OBJECTIVE: To observe therapeutic effect of acupuncture for regulating the liver on depressive neurosis.

METHODS: In a multi-center randomized controlled trial, 440 patients were divided into 3 groups: Acupuncture group for regulating the liver (Acup., 176 cases) was treated by acupuncture at Siguan Points, i.e., bilateral Hegu (LI 4) and Taichong (LR 3), Baihui (GV 20) and Yintang (EX-HN3) plus ear-acupuncture, Prozac group (P., 176 cases) by oral administration of Prozac, and Non-acupoint needling group (NAN, 88 cases) by acupuncture at non-acupoints as acupuncture placebo. Self-rating Depression Scale (SDS) was

examined before treatment, and one month, two and three months after treatment respectively to evaluate therapeutic effect, and Rating Scale for Side Effects (SERS) was used to evaluate the safety.

RESULTS: After one month of treatment, SDS scores in Acup. Group were significantly lower than that in P. Group ($P < 0.05$) and than that in NAN Group ($P < 0.01$), and SDS scores in P. Group were lower than that in NAN Group ($P < 0.05$), showing the SDS scores in Acup. Group $<$ P. Group $<$ NAN Group. After 2 months of treatment, SDS scores in Acup. Group were also significantly lower than that in P. Group ($P < 0.01$) and than that in NAN Group ($P < 0.01$), and SDS scores in P. Group were also lower than that in NAN Group ($P < 0.05$), showing the SDS scores in Acup. Group $<$ P. Group $<$ NAN Group. After 3 months of treatment, SDS scores in Acup. Group were also significantly lower than that in P. Group ($P < 0.01$) and than that in NAN Group ($P < 0.01$), and SDS scores in P. Group were also lower than that in NAN Group ($P < 0.01$), showing the SDS score in Acup. Group $<$ P. Group $<$ NAN Group. After treatment, SERS scores were 0.16 +/- 0.95, 6.51 +/- 5.09 and 0.23 +/- 1.36 in Acup. Group, P. Group and NAN Group respectively. A significant difference existed between Acup. Group and P. Group ($P < 0.05$), but no significant difference between Acup. Group and NAN Group ($P > 0.05$), showing the SERS scores in Acup. Group $<$ NAN Group $<$ P. Group. No side effect was found in Acup. and NAN groups.

CONCLUSION: The therapeutic effect of acupuncture on depressive neurosis is better than or similar to that of Prozac but with less side effect.

Taiwan J Obstet Gynecol. 2009 Jun;48(2):148-51.

Electroacupuncture reduces uterine artery blood flow impedance in infertile women.

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OBJECTIVE: To evaluate the effects of electroacupuncture (EA) on pregnancy rate and uterine artery blood flow impedance in patients undergoing in vitro fertilization (IVF).

MATERIALS AND METHODS: This prospective, randomized trial was carried out in the IVF center of China Medical University Hospital in Taiwan, from February 1, 2004 to January 30, 2005. A total of 44 patients were enrolled in the study. Of these, 30 were allocated to acupuncture, and 14 were allocated to no acupuncture. EA was performed four times, twice a week for 2 weeks, from day 2 of the study to the day before oocyte retrieval. After patients felt the needle reaction, the needles were attached to an electrical stimulator for 30 minutes. Clinical pregnancy and pulsatility index (PI) of right and left uterine arteries before and after EA were measured.

RESULTS: There was no significant difference in pregnancy rate between the two groups (acupuncture group, 30%; non-acupuncture group, 28.6%). The mean PI of both uterine arteries was significantly reduced after EA (left uterine artery, 2.3 to 2.0; right uterine artery, 2.4 to 2.2). There was no significant change in PI in the group with no acupuncture (left uterine artery, 2.5 to 2.3; right uterine artery, 2.4 to 2.3). **CONCLUSION:** EA could be useful for reducing uterine artery blood flow impedance, but did not increase the pregnancy rate in patients undergoing IVF.

Zhen Ci Yan Jiu. 2009 Jun;34(3):212-6.

Review on the mechanism of joint application of acupuncture therapy and medication in clinical practice

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Acupuncture therapy combined with medication has been widely used in clinic practice in China and proved to be effective in the treatment of many disorders. The authors of the present paper review researches on the underlying mechanism of joint application of acupuncture therapy and medication in recent decade from (1) neural regulation, (2) endocrine regulation, and (3) immunological regulation. After comprehensive analysis, the authors think that the mechanism underlying the enhanced clinical efficacy of acupuncture therapy combined with drugs may be closely associated with the following factors: (1) acupuncture stimulation of acupoints leads to changes of the drug concentration in the blood and/or in the target organ and, (2) the reactivity or sensitivity of the target organ tissues to the specifically effective drug elements is enhanced.

Zhen Ci Yan Jiu. 2009 Jun;34(3):207-11.

Advances of studies on the underlying mechanism of acupuncture efficacies by using functional magnetic resonance imaging

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In the present paper the authors review recent progress in the study on the underlying mechanism of acupuncture effects by using functional magnetic resonance imaging (fMRI) from (1) fMRI imaging technology, (2) the meridian-collateral system of Chinese medicine, (3) the factors affecting the therapeutic effect of acupuncture, (4) the mechanism underlying the efficacy of acupuncture treatment, (5) the experimental design methods for studying acupuncture by using fMRI, and (6) the methods for analyzing fMRI data. Research results show that fMRI technology is a new and useful approach for studying the underlying mechanism of acupuncture effect.

Zhen Ci Yan Jiu. 2009 Jun;34(3):188-92.

Randomized controlled study on ear-electroacupuncture treatment of endometriosis-induced dysmenorrhea in patients

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OBJECTIVE: To observe the therapeutic effect of ear-electroacupuncture (Ear-EA) on dysmenorrhea in patients with endometriosis and to explore its underlying mechanism.

METHODS: A total of 80 endometriosis patients were randomly and equally divided into ear-EA group and body-EA group. EA (50 Hz, 0.5-0.8 mA) was applied to auricular points (Uterus, Subcortex, Shenmen, Endocrine, etc.) and body acupoints Tianshu (ST 25), Qihai (CV 6), Guanyuan (CV 4), Sanyinjiao (SP 6), Dijii (SP 8), Uterus (EX-CA 1), etc. respectively for 30 min, once every other day for 3 months. Dysmenorrhea severity score (DSS) was assessed and plasma prostaglandin (PGE₂) and 6-Keto-PGF₁α levels detected by radioimmunoassay.

RESULTS: Compared with pre-treatment, DSS lowered significantly during the 1st and 2nd menstrual cycle in body-EA group, and during the 1st, 2nd and 3rd menstruation in ear-EA group; and the DSS of ear-EA group during the 3rd menstruation was evidently lower than that of body-EA group ($P < 0.05$). During the 3rd menstrual onset after the treatment, plasma PGE₂ contents in both groups decreased obviously ($P < 0.01$), and plasma 6-Keto-PGF₁α levels increased considerably in comparison with pre-

treatment ($P < 0.01$). Comparison between two groups during the 3rd menstruation showed that plasma PGE2 level of ear-EA group was markedly lower than that of body-EA group, and 6-Keto-PGF1alpha, level of ear-EA group was significantly higher than that of body-EA group ($P < 0.05$). No significant difference was found between two groups in clinical therapeutic effect ($P > 0.05$).

CONCLUSION: Both ear-EA and body-EA can effectively relieve endometriosis-induced dysmenorrhea, and the former is superior to the later in reducing pain severity, which may be closely related to their effects in reducing plasma PGE2 and raising 6-Keto-PGF1alpha level.

Zhen Ci Yan Jiu. 2009 Jun;34(3):183-7.

Observation on the therapeutic effect of acupuncture treatment of autism children

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OBJECTIVE: To observe the therapeutic effect of acupuncture ("Jin's Sanzhen") treatment for autism patients with different severity.

METHODS: A total of 202 autism children were divided into treatment group ($n=118$) and control group ($n=84$) according to their parents' will. Autism children in the treatment group were treated with "Jin's Sanzhen" therapy for example, Niesanzhen: the point 2 cun superior to the ear tip, and those at the same level 1 cun apart on the left and right sides; Naosanzhen: Naohu (GV 17), bilateral Naokong (GB 19), etc., while those of control group accepted special training: behavior education (cognition, speech, communication ability, life self-care ability, etc.) and sensory integration training. The treatment was given to the patients in both groups once per day, six times a week for 4 months.

RESULTS: Of the 78 and 58 severe patients in the treatment and control groups, 63 (80.8%) and 4 (6.9%) experienced marked improvement, 9 (11.5%) and 33 (56.9%) experienced improvement, 6 (7.7%) and 21 (36.2%) failed, with the effective rates being 92.3% and 63.8% respectively. Of the 118 and 84 patients in the treatment and control groups, after the treatment, the no symptoms, mild, moderate and severe cases were 12 (10.2%) and 3 (3.6%), 56 (47.5%) and 25 (29.8%), 45 (38.1%) and 23 (27.4%), 5 (4.2%) and 33 (39.3%), respectively. The total score of Childhood Autism Rating Scale of treatment group was significantly lower than that of control group after the treatment in severe cases ($P < 0.01$), showing a better therapeutic effect of the treatment group.

CONCLUSION: "Jin's Sanzhen" therapy has a better therapeutic effect for improving the autism patients symptoms at different severity.

Zhongguo Zhen Jiu. 2009 Jun;29(6):512-6.

Systematic evaluation of the randomized controlled trials about acupuncture and moxibustion treatment of allergic rhinitis

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OBJECTIVE: To evaluate the clinical effect and safety of acupuncture and moxibustion treatment for allergic rhinitis and to analyze the present situation of clinical researches.

METHODS: A search in PubMed, Cochrane Library, Chinese Biology Medicine (CBM) disk, and China National Knowledge Infrastructure (CNKI) databases was performed to gather the randomized controlled trials about acupuncture and moxibustion treatment for allergic rhinitis, identify additional clinical trials met the inclusion criteria and measure their qualities by using Cochrane Reviewers' Handbook 5.0. Statistical analysis was carried out by RevMan 4.2.8.

RESULTS: A meta-analysis was performed on a total of 1076 patients involved in 12 papers which met the inclusion criteria. There were significant differences in both cure rate (Incorporate RR = 1.86, 95% CI 1.51, 2.29, $Z = 5.82$, $P < 0.00001$) and marked improvement rate (Incorporate RR = 1.58, 95% CI 1.32, 1.89, $Z = 4.94$, $P < 0.00001$) between acupuncture and moxibustion treatment and the routine medicine treatment for allergic rhinitis.

CONCLUSION: Acupuncture and moxibustion to treat allergic rhinitis is effective and safe and may have certain advantage over the routine medicine treatment. However, as for the low quality of partial inclusion literatures, no definite conclusion can be obtained as yet and it still waits for higher quality researches to further prove the dominance of acupuncture and moxibustion treatment for allergic rhinitis.

Zhongguo Zhen Jiu. 2009 Jun;29(6):452-4.

Clinical observation on therapeutic effect of different acupuncture therapies on acute peripheral facial paralysis

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OBJECTIVE: To explore the better therapeutic method for acute peripheral facial paralysis.

METHODS: One hundred and ninety-seven cases of acute peripheral facial paralysis were randomly divided into an observation group ($n=125$) and a control group ($n=72$). The observation group was treated by injection at acupoint combined with warming needle therapy at Yifeng (TE 17), Wangu (GB 12), Xiaguan (ST 7), Qianzheng (EX), and Taiyang (EX-HN 5). The control group was treated with electroacupuncture at Yifeng (TE 17), Yangbai (GB 14), Xiaguan (ST 7), etc. Their therapeutic effects were compared between the two groups.

RESULTS: After three therapeutic courses, the cured rate and the total effective rate in the observation group were 76.0%, 100.0%, and 48.6%, 86.1% in the control group, respectively, with significant differences between the two groups (all $P < 0.01$).

CONCLUSION: Injection at acupoint combined with warming needle therapy could shorten the therapeutic cycle, improve the effectiveness, and decrease sequela in acute peripheral facial paralysis.

Zhongguo Zhen Jiu. 2009 Jun;29(6):436-40.

Clinical observation on transcutaneous electrical acupoint stimulation for treatment of functional dyspepsia

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OBJECTIVE: To compare the therapeutic effects of transcutaneous electrical point stimulation and medication on functional dyspepsia.

METHODS: Two hundred and fifty cases were randomly divided into an observation group and a control group, 125 cases in each group. The observation group was treated with transcutaneous electrical acupoint stimulation and oral administration of placebo, transcutaneous electrical stimulated at Zusanli (ST 36), Liangmen (ST 21), Taichong (LR 3) etc. The control group was treated with oral administration of Mosapride citrate dispersible tablets, Domperidone and Omeprazole and the placebo treatment of

transcutaneous electrical acupoint stimulation, the stimulated position was 3-4 cm to the selected points of the observation group, the amount of the stimulation did not reach the treatment amount. The symptom score, the plasma motilin (MTL) concentration and the somatostatin (SS) concentration were observed before and after treatment of 3 courses.

RESULTS: All symptom scores after treatment were lower than that before treatment in the two groups, the scores of the upper abdominal pain, acid regurgitation, belching and abdominal distention in the observation group were significantly lower than that in the control group ($P < 0.05$, $P < 0.01$); the treatments of both two groups can increase the plasma MTL concentration and decrease the SS concentration (both $P < 0.001$), and the plasma MTL concentration in the observation group was significantly higher than that in the control group ($P < 0.01$), and the SS concentration was significantly lower than that in the control group ($P < 0.05$).

CONCLUSION: Transcutaneous electrical point stimulation can more reduce the symptoms of upper abdominal pain, acid regurgitation, belching and abdominal distention, etc. in the functional dyspepsia patients than medication treatment, and can increase the concentration of the plasma MTL and decrease the SS concentration, thus to improve the gastrointestinal motility.

Zhongguo Zhen Jiu. 2009 Jun;29(6):431-5.

Effects of acupuncture preventive treatment on the quality of life in patients of no-aura migraine

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OBJECTIVE: To assess the therapeutic effects on acupuncture preventive treatment of no-aura migraine and its influence on the QOL (quality of life) of the patients.

METHODS: Randomized controlled, double-blind and double-dummy research methods were adopted, 60 cases were randomly divided into an observation group and a control group, 30 cases in each group. The observation group was treated with acupuncture combined with oral administration of Flunarizine Hydrochloride vacuity capsules, and Baihui (GV 20), Shenting (GV 24) and Benshen (GB 13) were selected as main points. The control group was treated with oral administration of Flunarizine Hydrochloride capsules combined with acupuncture at placebo-points, thrice each week, for 4 weeks. The SF-36 QOL Scale and effective rate were used for assessment of therapeutic effects before treatment, after treatment and 3 months later.

RESULTS: There were significant differences in each dimension scores of SF-36 at 3 time points between the two groups (all $P < 0.05$). The dimension of the physiological function in the observation group was superior to that of the control group after treatment ($P < 0.05$), and there was no significant difference in other 7 dimensions between the two groups (all $P > 0.05$). After treatment and 3 months later, the effective rates were 68.0%, 68.0% in the observation group and 24.0%, 32.0% in the control group, respectively, with significant differences between the two groups (all $P < 0.05$).

CONCLUSION: Acupuncture preventive treatment can effectively improve the life quality of the patients with migraine and reduce the migraine attack. There is no significant difference in improving the physical and psychological health of the migraine patients between acupuncture and Flunarizine Hydrochloride, and acupuncture is more effective in reducing the migraine attack days.

Arch Intern Med. 2009 May 11;169(9):858-66.

A randomized trial comparing acupuncture, simulated acupuncture, and usual care for chronic low back pain.

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BACKGROUND: Acupuncture is a popular complementary and alternative treatment for chronic back pain. Recent European trials suggest similar short-term benefits from real and sham acupuncture needling. This trial addresses the importance of needle placement and skin penetration in eliciting acupuncture effects for patients with chronic low back pain.

METHODS: A total of 638 adults with chronic mechanical low back pain were randomized to individualized acupuncture, standardized acupuncture, simulated acupuncture, or usual care. Ten treatments were provided over 7 weeks by experienced acupuncturists. The primary outcomes were back-related dysfunction (Roland-Morris Disability Questionnaire score; range, 0-23) and symptom bothersomeness (0-10 scale). Outcomes were assessed at baseline and after 8, 26, and 52 weeks.

RESULTS: At 8 weeks, mean dysfunction scores for the individualized, standardized, and simulated acupuncture groups improved by 4.4, 4.5, and 4.4 points, respectively, compared with 2.1 points for those receiving usual care ($P < .001$). Participants receiving real or simulated acupuncture were more likely than those receiving usual care to experience clinically meaningful improvements on the dysfunction scale (60% vs 39%; $P < .001$). Symptoms improved by 1.6 to 1.9 points in the treatment groups compared with 0.7 points in the usual care group ($P < .001$). After 1 year, participants in the treatment groups were more likely than those receiving usual care to experience clinically meaningful improvements in dysfunction (59% to 65% vs 50%, respectively; $P = .02$) but not in symptoms ($P > .05$).

CONCLUSIONS: Although acupuncture was found effective for chronic low back pain, tailoring needling sites to each patient and penetration of the skin appear to be unimportant in eliciting therapeutic benefits. These findings raise questions about acupuncture's purported mechanisms of action. It remains unclear whether acupuncture or our simulated method of acupuncture provide physiologically important stimulation or represent placebo or nonspecific effects.

Ann Nucl Med. 2009 May;23(3):311-6.

Therapeutic effects of acupuncture in patients with rheumatoid arthritis: a prospective study using (18)F-FDG-PET.

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OBJECTIVE: The purpose of this study was to investigate whether improvement of regional inflammatory findings in knee joints of rheumatoid arthritis (RA) could be detected by positron-emission tomography (PET) using (18)F-Fluorodeoxyglucose (FDG) after acupuncture treatments, as well as improvement of systemic inflammatory markers.

METHODS: Six RA patients (all female, 61 +/- 12 years old) received 10 acupuncture treatments in 2 months, to 11 traditional acupuncture points around a knee joint considered effective on RA. A visual analogue scale (VAS) for intensity of pain, knee joint range of motion (ROM), face scale for patient mood, and modified health assessment questionnaire (MHAQ) for disability of daily activities were assessed just before and after acupuncture. Maximum standardized uptake value (SUV(max)) and the volume with SUV more than 1.0 Volume(SUV > 1) on FDG-PET images as well as erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) levels were also measured before and after the treatments.

RESULTS: VAS, ROM, face scale and MHAQ improved in all patients and significantly after acupuncture, but no significant change was detected in ESR, CRP, SUV(max), or Volume(SUV > 1).

CONCLUSIONS: Acupuncture relieves symptom, remedies physical function, and improves quality of life in RA patients, but may have no or very limited anti-inflammatory effect systemically. The regional effects of acupuncture are unlikely to be induced through

reduction of regional inflammation. We believe this clinical study is the first step for elucidating therapeutic mechanisms of acupuncture, which must be important for the rational use and further development of acupuncture.

Br J Anaesth. 2009 May;102(5):620-5.

P6 acustimulation effectively decreases postoperative nausea and vomiting in high-risk patients.

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BACKGROUND: Electrical acustimulation can reduce postoperative nausea and vomiting (PONV). The primary purpose of this study was to investigate the effectiveness of acustimulation in relation to known risk factors for PONV. We also tested the secondary hypothesis that pre- or post-induction application of acustimulation

RESULTS in differences in PONV reduction.

METHODS: Two hundred women undergoing vaginal hysterectomy were enrolled in this prospective, observer-blind, randomized controlled trial. Patients received randomly for 24 h acustimulation (n=101), subdivided into groups of pre-induction (n=48) and post-induction (n=53), or sham stimulation (n=99), subdivided into groups of pre-induction (n=49) or post-induction (n=50). Nausea and vomiting/retching was recorded for 24 h after operation in the whole group and stratified by risk factors (female gender, non-smoker, history of PONV/motion sickness, and postoperative morphine usage).

RESULTS: The incidence of PONV and need for rescue therapy was significantly lower in the acustimulation than in the sham group (PONV, 33% vs 63%, $P < 0.001$; rescue therapy, 39% vs 61%, $P = 0.001$). The risk ratio for acustimulation and PONV was 0.29 95% confidence interval (CI) 0.16-0.52 and for rescue therapy, it was 0.38 (95% CI 0.21-0.66). Subgroup analyses according to the simplified risk score by Apfel and colleagues revealed a reduction in high-risk patients, that is, when three or four risk factors were present. Binary logistic regression analysis revealed that no history of PONV and usage of acustimulation were independent predictors for risk reduction of all PONV qualities. No significant difference in PONV reducing effects could be detected between pre- and post-induction.

CONCLUSIONS: Continuous 24 h acustimulation decreases PONV, particularly in patients at high risk.

Clin J Pain. 2009 May;25(4):327-33.

Acupuncture in patients with carpal tunnel syndrome: A randomized controlled trial.

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OBJECTIVES: To investigate the efficacy of acupuncture compared with steroid treatment in patients with mild-to-moderate carpal tunnel syndrome (CTS) as measured by objective changes in nerve conduction studies (NCS) and subjective symptoms assessment in a randomized, controlled study.

METHODS: A total of 77 consecutive and prospective CTS patients confirmed by NCS were enrolled in the study. Those who had fixed sensory complaint over the median nerve and thenar muscle atrophy were excluded. The CTS patients were randomly divided into 2 treatment arms: (1) 2 weeks of prednisolone 20 mg daily followed by 2 weeks of prednisolone 10 mg daily ($n = 39$), and (2) acupuncture administered in 8 sessions over 4 weeks ($n = 38$). A validated standard questionnaire as a subjective measurement was used to rate the 5 major symptoms (pain, numbness, paresthesia, weakness/clumsiness, and nocturnal awakening) on a scale from 0 (no symptoms) to 10 (very severe). The total score in each of the 5 categories was termed the global symptom score (GSS). Patients completed standard questionnaires at baseline and 2 and 4 weeks later. The changes in GSS were analyzed to evaluate the statistical significance. NCS were performed at baseline and repeated at the end of the study to assess improvement. All main analyses used intent-to-treat.

RESULTS: A total of 77 patients who fulfilled the criteria for mild-to-moderate CTS were recruited in the study. There were 38 in the acupuncture group and 39 in the steroid group. The evaluation of GSS showed that there was a high percentage of improvement in both groups at weeks 2 and 4 ($P < 0.01$), though statistical significance was not demonstrated between the 2 groups ($P = 0.15$). Of the 5 main symptoms scores (pain, numbness, paresthesia, weakness/clumsiness, nocturnal awakening), only 1, nocturnal awakening, showed a significant decrease in acupuncture compared with the steroid group at week 4 ($P = 0.03$). Patients with acupuncture treatment had a significant decrease in distal motor latency compared with the steroid group at week 4 ($P = 0.012$). Acupuncture was well tolerated with minimal adverse effects.

ONCLUSIONS: Short-term acupuncture treatment is as effective as short-term low-dose prednisolone for mild-to-moderate CTS. For those who do have an intolerance or contraindication for oral steroid or for those who do not opt for early surgery, acupuncture treatment provides an alternative choice.

J Altern Complement Med. 2009 May;15(5):495-500.

Characteristics of electrical skin resistance at acupuncture points in healthy humans.

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OBJECTIVES: The aim of this study was to evaluate the phenomenon of electrical skin resistance (ESR) changes at different acupuncture points (APs). **SETTING:** This single-blinded study was performed at the hospital of the University of Munich. **DESIGN:** Six common APs were measured (TE5, PC6, LU6, ST36, SP6, GB39) in 53 subjects. Subgroups were formed with varying time intervals for follow-ups (1 minute, 1 hour, 1 week) and a varying grade of reduction of the stratum corneum.

METHODS: Electrical skin resistance measurements (ESRMs) were taken from a skin area of 6 x 6 cm using an array consisting of 64 (8 x 8) electrodes. The electrodes corresponding to the AP were located and the ESRM results were compared to those of the surrounding electrodes. The methodological setting made it possible to minimize major influence factors on electrical skin impedance measurements.

RESULTS: A total of 631 ESRMs was evaluated: In 62.8% of the measured APs, no significant ESR difference was found. In 234 (37.2%) of the ESRMs, the ESR at the AP was significantly different from the surrounding skin area, with 163 (25.9%) points showing a lower and 71 (11.3%) points showing a higher ESR. Reproducibility was extremely high after 1 minute but was low after 1 hour and 1 week.

CONCLUSIONS: This study shows that electrical skin resistance at APs can either be lower or higher compared to the surrounding area. The phenomenon is characterized by high short-term and low long-term reproducibility. Therefore, we conclude that APs might possess specific transient electrical properties. However, as the majority of the measured APs did not show a changed ESR, it cannot be concluded from our data that electrical skin resistance measurements can be used for acupuncture point localization or diagnostic/therapeutic purposes.

Menopause. 2009 May-Jun;16(3):484-93.

The Acupuncture on Hot Flashes Among Menopausal Women (ACUFLASH) study, a randomized controlled trial.

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OBJECTIVE: This study compared the effectiveness of individualized acupuncture plus self-care versus self-care alone on hot flashes and health-related quality of life in postmenopausal women.

METHODS: This study involved a multicenter, pragmatic, randomized, controlled trial with two parallel arms. Participants were postmenopausal women experiencing, on average, seven or more hot flashes per 24 hours during seven consecutive days. The acupuncture group received 10 acupuncture treatment sessions and advice on self-care, and the control group received advice on self-care only. The frequency and severity (0-10 scale) of hot flashes were registered in a diary. Urine excretion of calcitonin gene-related peptide was assessed at baseline and after 12 weeks. The primary endpoint was change in mean hot flash frequency from baseline to 12 weeks. The secondary endpoint was change in health-related quality of life measured by the Women's Health Questionnaire.

RESULTS: Hot flash frequency decreased by 5.8 per 24 hours in the acupuncture group (n = 134) and 3.7 per 24 hours in the control group (n = 133), a difference of 2.1 (P < 0.001). Hot flash intensity decreased by 3.2 units in the acupuncture group and 1.8 units in the control group, a difference of 1.4 (P < 0.001). The acupuncture group experienced statistically significant improvements in the vasomotor, sleep, and somatic symptoms dimensions of the Women's Health Questionnaire compared with the control group. Urine calcitonin gene-related peptide excretion remained unchanged from baseline to week 12.

CONCLUSIONS: Acupuncture plus self-care can contribute to a clinically relevant reduction in hot flashes and increased health-related quality of life in postmenopausal women.

Pediatr Crit Care Med. 2009 May;10(3):291-6.

Using acupuncture for acute pain in hospitalized children.

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OBJECTIVE: Clinical study to determine the acceptability and feasibility of acupuncture for acute postoperative pain control in hospitalized children. **DESIGN:** Nonrandomized clinical trial.

SETTING: A single, tertiary referral pediatric intensive care unit.

PATIENTS: A total of 20 patients aged 7 months to 18 years. Eleven of the patients had posterior spinal fusion surgery and the remaining nine patients had other surgical diagnoses.

INTERVENTIONS: Two 10- to 15-minute sessions of acupuncture 24-48 hours apart.

OUTCOME MEASURES AND RESULTS: The treatment was highly accepted (27 patients were approached and 4 patients refused; of the 23 patients enrolled, 20 patients completed the study). Acupuncture was well tolerated by patients without adverse events related to treatment. In follow-up interviews, 70% of both parents and patients believed acupuncture helped the child's pain. Eighty-five percent of the parents said they would pay out of pocket for acupuncture if not covered by insurance. The pain scores, vital signs, and narcotic usage were recorded before and several times after acupuncture. In posterior spinal fusion patients, the mean pain scores (0-10) immediately before and 4 and 24 hours after acupuncture were: 3.7, 1.7, and 3.1, respectively, after the first acupuncture session and 3.7, 2.2, and 3.1, respectively, after the second session. In the other surgical cohort, the mean pain scores immediately before and 4 and 24 hours after the first session of acupuncture were 2.5, 0.3, and 1.6, respectively.

CONCLUSIONS: Our results support that acupuncture is highly accepted and feasible in critically ill, postoperative pediatric patients with acute pain. Our findings suggest that acupuncture may be a potentially useful adjunctive tool for acute pediatric postoperative pain management. A randomized, controlled clinical trial is warranted to confirm these findings.

Urology. 2009 May;73(5):1036-41.

Electroacupuncture relieves pain in men with chronic prostatitis/chronic pelvic pain syndrome: three-arm randomized trial.

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OBJECTIVES: To investigate the clinical effect of electroacupuncture (EA) for chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS). **METHODS:** We recruited 63 participants meeting the U.S. National Institutes of Health (NIH) consensus criteria for CP/CPPS. After the inclusion/exclusion criteria were applied, 39 men were randomized to 3 treatment groups: group 1, advice and exercise plus 12 sessions of EA; group 2, advice and exercise plus 12 sessions of sham EA (SEA); and group 3, advice and exercise alone (A&E) for 6 weeks. A total of 6 acupuncture points were used to stimulate the sacral nerve and release the piriformis muscle using an electrical pulse generator. Symptoms related to CP/CPPS were assessed using the NIH-Chronic Prostatitis Symptom Index (NIH-CPSI). Prostaglandin E(2) and beta-endorphin levels in postmassage urine samples were measured using an enzyme-linked immunosorbent assay.

RESULTS: At 6 weeks, the NIH-CPSI total score had decreased significantly in the EA group compared with the SEA and A&E groups (P < .001). On a subscale analysis of the NIH-CPSI, the EA group showed significant decreases in pain-related symptoms compared with the SEA and A&E groups (P < .01). All 12 EA participants experienced at least a 6-point decrease in the NIH-CPSI total score compared with 2 of 12 SEA participants (16.7%) and 3 of 12 A&E participants (25.0%; P < .0001). The mean prostaglandin E(2) level in the postmassage urine samples had significantly decreased in the EA group (P = .023). In contrast, it had increased in the other 2 groups.

CONCLUSIONS: In a 3-arm randomized trial investigating the clinical effects of EA on CP/CPPS, EA therapy proved to have independent therapeutic effects, particularly for pain relief superior to SEA or A&E therapy.

Zhongguo Zhen Jiu. 2009 May;29(5):361-4.

Clinical observation on acupuncture for treatment of chronic atrophic gastritis

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OBJECTIVE: To compare the therapeutic effects of acupuncture and western medicine for treatment of chronic atrophic gastritis.

METHODS: Eighty cases of chronic atrophic gastritis were randomly divided into an observation group and a control group, 40 cases in each group. The observation group was treated with acupuncture and moxibustion on Guanyuan (CV 4), Qihai (CV 6), Zusanli (ST

36), Xuehai (SP 10), Geshu (BL 17); and the control group with oral administration of western medicine, Omeprazole and Amoxicillin, etc. Evaluation of the scores of clinical symptoms, gastroscopic inspection and histopathologic examination of the gastric mucosa were carried out before treatment and after treatment of 4 and 8 weeks in each group to compare the therapeutic effects between the two groups.

RESULTS: The total effective rate of 92.5% in the acupuncture group was better than 75.0% in the control group ($P < 0.05$). For the pathologic changes of gastric mucosa by the gastroscopic inspection, the total effective rate of 85.0% in the acupuncture group was superior to 65.0% in the control group ($P < 0.05$), and for the improvement of histopathologic aspect, the total effective rate of 87.5% in the acupuncture group was better than 65.0% in the control group ($P < 0.05$).

CONCLUSION: Acupuncture therapy can significantly improve the clinical symptoms, gastroscopic expression and histopathologic situation in the patients of chronic atrophic gastritis, and its therapeutic effect is better than that of the western medicine.

Zhongguo Zhen Jiu. 2009 May;29(5):357-60.

Clinical study on acupuncture intervention time for treatment of peripheral facial paralysis

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OBJECTIVE: To observe effects of intervention time of local acupuncture at the affected side on the facial nerve injury and the therapeutic effect at acute stage of peripheral facial paralysis.

METHODS: Two hundred and seventy-nine cases within 3 days of attack were randomly divided into 4 groups, group A ($n=74$), group B ($n=70$), group C ($n=74$) and control group ($n=61$). The 4 groups were treated with Prednisone on the third day after attack, and acupuncture was added in the group A, B and C, with Fengchi (GB 20), Yangbai (GB 14), Taiyang (EX-HN 5), Sibai (ST 2), Yingxiang (LI 20), etc. on the affected side and bilateral Hegu (LI 4) selected, and with superficial insertion method used for acupoints on the ear-face parts without manipulating the needles, and electroacupuncture was added from the fifth session of the treatment, and uniform reinforcing-reducing method was used for the distal acupoints selected. The needles were retained for 20 min and the treatment was given for 25 sessions, once other day. The therapeutic effects, the mean therapeutic courses for the cured patients and changes of .electroneurography (ENoG) were compared among the groups.

RESULTS: The clinical total effective rate was 98.6%, 95.7%, 94.6% and 72.1% in the group A, B, C and the control group, respectively, with a significant difference ($P < 0.05$), and the therapeutic course for the cured patients increased in the order of the group A, B, C and the control group; and there was no significant difference among the 4 groups in changes of ENoG at the third day and the fourteenth day (both $P > 0.05$).

CONCLUSION: Acute stage is the best opportunity for acupuncture treatment of peripheral facial paralysis, and the earlier the intervention time, the better the therapeutic effect and the shorter the therapeutic course.

Zhongguo Zhen Jiu. 2009 May;29(5):349-52.

Clinical observation on therapeutic effect of electroacupuncture at Quchi (LI 11) for treatment of essential hypertension

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OBJECTIVE: To observe the therapeutic effect of electroacupuncture (EA) at Quchi (LI 11) on blood pressure and blood plasma catecholamines in the patient of essential hypertension and to investigate the mechanism.

METHODS: Sixty cases of essential hypertension were randomly divided into an EA group ($n=30$) and a control group ($n=30$). In the EA group, bilateral Quchi (LI 11) were selected; and in the control group, western medicine Nicardipine was taken. The variation of blood pressure and blood plasma catecholamines were examined before and after the treatment.

RESULTS: (1) After treatment, there were significant reduction in the levels of systolic blood pressure and diastole blood pressure in both groups ($P < 0.01$); (2) After treatment, significant reduction in levels of adrenaline and noradrenaline were also found in both groups ($P < 0.01$), however, no significant differences in the level of dopamine were observed in both groups ($P > 0.05$); (3) The effective rate of 66.7% in the EA group was similar to that of 70.0% in the control group ($P > 0.05$).

CONCLUSION: Both EA at Quchi (LI 11) and western medicine are able to beneficially regulate blood pressure of patients with essential hypertension through adjusting blood plasma catecholamines.

Zhongguo Zhen Jiu. 2009 May;29(5):345-8.

Multi-central randomized controlled study on electroacupuncture at Fenglong (ST 40) for regulating blood lipids

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OBJECTIVE: To investigate the clinical effects of electroacupuncture (EA) at Fenglong (ST 40) on blood lipids.

METHODS: Two hundred and four patients of hyperlipidemia were randomly divided into a Fenglong group and a Xuezhikang group, 102 cases in each group. The patients in the Fenglong group were treated with electroacupuncture at Fenglong (ST 40). After arrival of qi, the needles were connected with acupoint nerve stimulator (LH 202 H type, HANS). The primary parameters of EA: for high triglycerides (TG) type, AM 50 Hz, intensity 1 mA, needle-retained time 20 min, twice per week; for high cholesterol (CHO) type, AM 100 Hz, intensity 1 mA, needle-retained time 30 min, thrice per week; for high .low-density-lipoprotein (LDL-C) type, the same parameters as the high CHO type except the tolerable and comfortable intensity; for the mixing type, corresponding methods were alternatively used. The patients in the Xuezhikang group received Xuezhikang capsule orally, 2 capsules each time and twice daily, for total 11 weeks.

RESULTS: The total effective rates of the Fenglong group and the Xuezhikang group were 83.0% and 85.9%, respectively, with no significant difference between the two groups ($P > 0.05$), and there was no significant differences in the function of regulating blood lipids between the two groups (all $P > 0.05$). After one month follow-up survey, the total CHO, TG and LDL-C decreased and high-density-lipoprotein (HDL-C) increased, of which there was a significant difference in TG reduction ($P < 0.05$). There were no relapses in both groups. **CONCLUSION:** EA at Fenglong (ST 40) can effectively regulate blood lipids with a better after-effect, which can be applied as a safe and effective method to replace medication for regulating blood lipids.

Cochrane Database Syst Rev. 2009 Apr 15;(2):CD003281.

Stimulation of the wrist acupuncture point P6 for preventing postoperative nausea and vomiting.

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BACKGROUND: Postoperative nausea and vomiting (PONV) are common complications following surgery and anaesthesia. Drugs to prevent PONV are only partially effective. An alternative approach is to stimulate the P6 acupoint on the wrist. This is an update of a Cochrane review first published in 2004.

OBJECTIVES: To determine the efficacy and safety of P6 acupoint stimulation in preventing PONV. **SEARCH STRATEGY:** We searched CENTRAL (The Cochrane Library, Issue 3, 2008), MEDLINE (January 1966 to September 2008), EMBASE (January 1988 to September 2008), ISI Web of Science (January 1965 to September 2008), the National Library of Medicine publication list of acupuncture studies, and reference lists of articles.

SELECTION CRITERIA: All randomized trials of techniques that stimulated the P6 acupoint compared with sham treatment or drug therapy for the prevention of PONV. Interventions used in these trials included acupuncture, electro-acupuncture, transcutaneous nerve stimulation, laser stimulation, capsicum plaster, an acu-stimulation device, and acupressure in patients undergoing surgery. Primary outcomes were the risks of nausea and vomiting. Secondary outcomes were the need for rescue antiemetic therapy and adverse effects.

DATA COLLECTION AND ANALYSIS: Two review authors independently assessed trial quality and extracted the data. We collected adverse effect information from the trials. We used a random-effects model and reported relative risk (RR) with associated 95% confidence intervals (95% CI).

MAIN RESULTS: We included 40 trials involving 4858 participants; four trials reported adequate allocation concealment. Twelve trials did not report all outcomes. Compared with sham treatment P6 acupoint stimulation significantly reduced: nausea (RR 0.71, 95% CI 0.61 to 0.83); vomiting (RR 0.70, 95% CI 0.59 to 0.83), and the need for rescue antiemetics (RR 0.69, 95% CI 0.57 to 0.83). Heterogeneity among trials was moderate. There was no clear difference in the effectiveness of P6 acupoint stimulation for adults and children; or for invasive and noninvasive acupoint stimulation. There was no evidence of difference between P6 acupoint stimulation and antiemetic drugs in the risk of nausea (RR 0.82, 95% CI 0.60 to 1.13), vomiting (RR 1.01, 95% CI 0.77 to 1.31), or the need for rescue antiemetics (RR 0.82, 95% CI 0.59 to 1.13). The side effects associated with P6 acupoint stimulation were minor. There was no evidence of publication bias from contour-enhanced funnel plots.

AUTHORS' CONCLUSIONS: P6 acupoint stimulation prevented PONV. There was no reliable evidence for differences in risks of postoperative nausea or vomiting after P6 acupoint stimulation compared to antiemetic drugs.

Chin Med J (Engl). 2009 Apr 5;122(7):823-9.

Temporally shifted hemodynamic response model helps to extract acupuncture-induced functional magnetic resonance imaging blood oxygenation-level dependent activities.

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BACKGROUND: The onsets of needling sensation introduced by acupuncture stimulus can vary widely from subject to subject. This should be explicitly accounted for by the model blood oxygenation-level dependent (BOLD) time course used in general linear model (GLM) analysis to obtain more consistent across-subject group results. However, in standard GLM analysis, the model BOLD time course obtained by convolving a canonical hemodynamic response function with an experimental paradigm time course is assumed identical across subjects. Although some added-on properties to the model BOLD time course, such as temporal and dispersion derivatives, may be used to account for different BOLD response onsets, they can only account for the BOLD onset deviations to the extent of less than one repetition time (TR). **Methods** In this study, we explicitly manipulated the onsets of model BOLD time course by shifting it with -2, -1, or 1 TR and used these temporally shifted BOLD model to analyze the functional magnetic resonance imaging (fMRI) data obtained from three acupuncture fMRI experiments with GLM analysis. One involved acupuncture stimulus on left ST42 acupoint and the other two on left GB40 and left BL64 acupoints.

RESULTS: The model BOLD time course with temporal shifts, in addition to temporal and dispersion derivatives, could result in better statistical power of the data analysis in terms of the average correlation coefficients between the used BOLD models and extracted BOLD responses from individual subject data and the T-values of the activation clusters in the grouped random effects.

CONCLUSIONS: The GLM analysis with ordinary BOLD model failed to catch the large variability of the onsets of the BOLD responses associated with the acupuncture needling sensation. Shifts in time with more than a TR on model BOLD time course might be required to better extract the acupuncture stimulus-induced BOLD activities from individual fMRI data.

Ann Allergy Asthma Immunol. 2009 Apr;102(4):269-79; quiz 279-81, 307.

Acupuncture for allergic rhinitis: a systematic review.

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OBJECTIVE: To systematically evaluate the effectiveness of acupuncture for treating or preventing allergic rhinitis (AR). **DATA SOURCES:** We retrieved data from 17 electronic databases, nonelectronic searches of conference proceedings, our own files of articles, and bibliographies of located articles.

STUDY SELECTION: All randomized clinical trials (RCTs) of acupuncture for AR were considered for inclusion if they included placebo controls or were controlled against a comparator intervention.

RESULTS: One hundred fifteen possibly relevant studies were identified and 12 RCTs met our inclusion criteria. The methodologic quality of the individual trials was variable. Our review includes 7 trials of high quality that met standards of methodologic rigor. All RCTs tested the effectiveness of acupuncture on AR symptoms and none on its curative value. Three RCTs failed to show superiority of acupuncture for treating or preventing symptoms for seasonal AR compared with placebo acupuncture. For perennial AR, 1 study reported favorable effects of acupuncture on a rhinitis symptoms score and 1 found positive results for a nasal symptoms score compared with placebo acupuncture (n = 152; standard mean difference, 0.45; 95% confidence interval, 0.13-0.78; P = .006; heterogeneity: $\chi^2 = 0.45$, P = .50, I² = 0%). Two RCTs compared acupuncture with oral pharmacologic medications. Their results were in favor of acupuncture.

CONCLUSIONS: The evidence for the effectiveness of acupuncture for the symptomatic treatment or prevention of AR is mixed. The results for seasonal AR failed to show specific effects of acupuncture. For perennial AR, results provide suggestive evidence of the effectiveness of acupuncture.

Hum Brain Mapp. 2009 Apr;30(4):1196-206.

The salient characteristics of the central effects of acupuncture needling: limbic-paralimbic-neocortical network modulation.

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Human and animal studies suggest that acupuncture produces many beneficial effects through the central nervous system. However, the neural substrates of acupuncture actions are not completely clear to date. fMRI studies at Hegu (LI4) and Zusanli (ST36) indicated that the limbic system may play an important role for acupuncture effects. To test if this finding applies to other major classical acupoints, fMRI was performed on 10 healthy adults during manual acupuncture at Taichong (LV3), Xingjian (LV2), Neiting (ST44), and a sham point on the dorsum of the left foot. Although certain differences could be observed between real and sham points, the hemodynamic response (BOLD signal changes) and psychophysical response (sensory experience) to acupuncture were generally similar for all four points. Acupuncture produced extensive deactivation of the limbic-paralimbic-neocortical system. Clusters of deactivated regions were seen in the medial prefrontal cortex (frontal pole, pregenual cingulate), the temporal lobe (amygdala, hippocampus, and parahippocampus) and the posterior medial cortex (precuneus, posterior cingulate). The sensorimotor cortices (somatosensory cortices, supplementary motor cortex), thalamus and occasional paralimbic structures such as the insula and anterior middle cingulate cortex showed activation. Our results provide additional evidence in support of previous reports that acupuncture modulates the limbic-paralimbic-neocortical network. We hypothesize that acupuncture may mediate its antipain, antianxiety, and other therapeutic effects via this intrinsic neural circuit that plays a central role in the affective and cognitive dimensions of pain as well as in the regulation and integration of emotion, memory processing, autonomic, endocrine, immunological, and sensorimotor functions. 2008 Wiley-Liss, Inc.

J Altern Complement Med. 2009 Apr;15(4):391-8.

Impact of acupuncture on vasomotor rhinitis: a randomized placebo-controlled pilot study.

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OBJECTIVES: Chronic rhinitis without an allergic or infectious etiology (vasomotor rhinitis) is a common disease for which there are only few and not very effective therapeutic treatment options. The current placebo-controlled, partially double-blinded pilot study evaluated the effects of acupuncture on the symptoms of vasomotor rhinitis.

DESIGN: A total of 24 patients with confirmed diagnosis of vasomotor rhinitis were randomly allocated to either acupuncture or sham laser acupuncture treatment. The sham laser was a deactivated laser pen beaming normal red light. The main outcome measure was the alteration of the nasal sickness score (NSS; score(max) 27 points). Secondary outcome measures were the evaluation of a subjective symptoms score by patients' diaries and of their quality of life (SF-12 health survey). A credibility assessment regarding the respective treatment was performed. The study is registered as an International Standard Randomised Controlled Trial, number NCT00682162.

RESULTS: NSS of patients treated by acupuncture was significantly reduced from 9.3 +/- 3.89 to 4.1 +/- 3.20 points ($p < 0.001$), whereas NSS declined from 5.6 +/- 2.74 to 3.7 +/- 2.61 points after sham treatment ($p < 0.05$). Comparison between the groups revealed a significant change of NSS (Mann-Whitney, $p < 0.01$), an analysis that also considers the significant difference between the baseline values of both groups ($p < 0.05$). Secondary outcome measures did not show significant differences between both groups. The credibility assessment was comparable for both treatments.

CONCLUSIONS: This pilot study showed significant effects of acupuncture compared to a sham treatment in the NSS on symptoms of vasomotor rhinitis. These results may justify the performance of a large randomized trial to strengthen our understanding of the therapeutic value of acupuncture in the treatment of vasomotor rhinitis.

Zhen Ci Yan Jiu. 2009 Apr;34(2):125-7, 135.

Observation on the therapeutic effect of electroacupuncture of Jiaji (EX-B 2) plus regional encircled needling for herpes zoster

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OBJECTIVE: To observe the clinical therapeutic effect of electroacupuncture (EA) of Jiaji (EX-B 2) plus focus-encircled needling for promoting the crust formation of herpes zoster and analgesia.

METHODS: Eighty cases of herpes zoster patients were equally randomized into EA group treated with EA of Ashi-point, Jiaji (EX-B 2), Zhigou (SJ 6) and Houxi (SI 3), once daily for 10 times and medication group (treated with valaciclovir hydrochloride 300 mg/time, b. i. d. and vitamin B1 10 mg/time, t.i.d., 10 days). The pain severity was evaluated by using visual analogous scale (VAS) method. The time when the cutaneous scabbing area was equal or over 50% was recorded.

RESULTS: After the treatment, of the two 40 cases in EA and medication groups, 30 (75.0%) and 15 (37.5%) were cured, 7 (17.5%) and 12 (30.0%) improved, 3 (7.5%) and 13 (32.5%) failed, with the total effective rates being 92.5% and 67.5%, respectively. The therapeutic effect of EA was significantly superior to that of medication ($P < 0.01$). VAS scores of both groups reduced significantly ($P < 0.01$). Both the VAS score and the crust formation time of EA group were significantly lower than those of medication group ($P < 0.01$).

CONCLUSION: EA of Jiaji (EX-B 2) in combination with focus-encircled needling is effective in facilitating the crust formation and pain relief in the treatment of herpes zoster, and the effect of acupuncture is superior to that of medication.

Zhen Ci Yan Jiu. 2009 Apr;34(2):120-4.

Randomized controlled clinical trials of acupuncture treatment of chronic fatigue syndrome

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OBJECTIVE: To observe the effect of acupuncture on the fatigue degree in patients with chronic fatigue syndrome (CFS).

METHODS: Seventy CFS patients were equally randomized into control and treatment groups according to randomized block design. Acupuncture was applied to Baihui (GV 20), Danzhong (CV 17), Zhongwan (CV 12), etc., for patients in treatment group, and to non-acupoints (2 cm respectively to the abovementioned acupoints) for those in control group. The treatment was given once every other day, 14 times altogether. The fatigue degree and the therapeutic effect were assessed by Chalder's fatigue scale (FS).

RESULTS: A total of 64 cases (32/group) were finished in this study. After the treatment, the physical FS (5.0 +/- 2.4 vs 6.8 +/- 1.5), mental FS (1.8 +/- 1.8 vs 3.1 +/- 1.5) and the total FS (6.8 +/- 3.8 vs 9.9 +/- 2.5) in treatment group, physical FS (5.0 +/- 2.5 vs 6.4 +/- 1.5) and the total FS (7.5 +/- 3.4 vs 9.6 +/- 2.8) in control group decreased significantly compared with pre-

treatment ($P < 0.01$, $P < 0.05$). There was no marked change in mental FS (2.5 ± 11.6 vs 3.2 ± 11.6) in control group after the treatment ($P > 0.05$). Comparison between two groups showed no significant differences in the 3 indexes ($P > 0.05$).

CONCLUSION: Acupuncture can relieve CFS patients' physical and mental fatigue and the therapeutic effect of acupuncture of acupoints is relatively better than that of non-acupoints in reducing mental fatigue.

Zhongguo Zhen Jiu. 2009 Apr;29(4):265-8.

Observation on therapeutic effect of acupoint application on dysmenorrhea of excess syndrome and effect on prostaglandins

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OBJECTIVE: To observe therapeutic effect of acupoint application on dysmenorrhea of excess syndrome and its effect on prostaglandins. **METHODS:** The patients with primary dysmenorrhea of excess syndrome were randomly divided into an application group and a medication group. The application group of 31 cases were treated with application of Chinese medicine composed of Zhinanxing (*Rhizoma Arisaematis*), Sanleng (*Rhizoma Sparganii*), Ezhu (*Rhizoma Zedoariae*), etc. at Zhongji (CV 3), Guanyuan (CV 4), Qihai (CV 6); and the medication group of 30 cases were treated with oral administration of Tianqi Tongjing Capsules. The scores for the pain degrees and the duration of dysmenorrhea were observed and prostaglandin F₂alpha (PGF₂alpha) and prostaglandin E₂ (PGE₂) contents in peripheral blood were determined before and after treatment.

RESULTS: The total effective rate of 93.5% in the application group was significantly better than 73.3% in the medication group ($P < 0.05$); after treatment, the scores of the symptoms were significantly decreased in the two groups (both $P < 0.01$), with more obvious improvement in the application group than the medication group ($P < 0.01$). The PGE₂ content was significantly increased, and the PGF₂alpha content and PGF₂alpha/PGE₂ were significantly decreased in the application group (all $P < 0.01$).

CONCLUSION: Acupoint application has a better therapeutic effect on dysmenorrhea of excess syndrome and has benign regulative action on synthesis of prostaglandins in the patients with primary dysmenorrhea.

Zhongguo Zhen Jiu. 2009 Apr;29(4):259-63.

Acupuncture at points of the liver and gallbladder meridians for treatment of migraine: a multi-center randomized and controlled study

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OBJECTIVE: To investigate the therapeutic effect and safety of acupuncture at points of The Liver and Gallbladder Meridians for treatment of migraine.

METHODS: Multi-central, randomized and controlled trial was used and 253 cases of migraine were divided into an acupuncture group and a western medicine group. The acupuncture group was treated with acupuncture at points of The Liver and Gallbladder Channels with Taichong (LR 3), Yang-lingquan (GB 34), Fengchi (GB 20), Ququan (LR 8) selected as main points, and the western medicine group with oral administration of Flunarizine tablets for 4 therapeutic courses. The total therapeutic effects 3 and 6 months after the treatment, the scores of various symptoms of migraine before and after treatment, and the stability of therapeutic effect in one-year following-up survey were observed in the two groups.

RESULTS: After treatment, mean times and duration of the headache attack were significantly improved in the two groups (all $P < 0.01$) with the acupuncture group better than the western medicine group ($P < 0.05$). The total effective rates for stopping pain after treatment, 3 months and 6 months after treatment in the acupuncture group were 93.0%, 93.0% and 87.7%, respectively, which were better than 85.6%, 86.5% and 69.2% in the western medication group (all $P < 0.01$). One year later, the stability of the therapeutic effect in the acupuncture group was better than that in the western medicine group ($P < 0.05$); the adverse reaction and the compliance in the acupuncture group were significantly superior to those in the western medicine group.

CONCLUSION: Acupuncture at points of The Liver and Gallbladder Meridians for treatment of migraine is safe, effective, and with stable long-term therapeutic effect.

Neurosci Lett. 2009 Mar 13;452(2):194-9.

A cerebral functional imaging study by positron emission tomography in healthy volunteers receiving true or sham acupuncture needling.

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Our recent studies have demonstrated that needling in Baihui, Shuigou and Shenmen enhances glucose metabolism in the frontal lobes, thalamus, temporal lobe, and the lentiform nucleus in vascular dementia. This study examined the effect of true, sham and overt needling in Waiguan (TE5) on cerebral changes by positron emission tomography (PET) technique. Eighteen healthy volunteers were randomized to receive overt control, true or sham needling therapy. To manipulate true needling, a needle was inserted into 15+/-2mm into Waiguan and "deqi" was achieved by proper needle manipulation. For sham needling, needles with a blunt tip were pushed against the skin as the shaft moved into the handle, giving an illusion of insertion. For overt placebo, blunt needles were used and subjects did not receive any needling penetration. The tracer used was (18)fluoride-deoxyglucose. PET images obtained were processed and analyzed by the SPM2 software. Compared with overt needling, brain areas BA7, 13, 18, 19, 21, 22, 27, 38, 40, 42 and 45 in Waiguan true needling group were significantly activated and areas BA4, 6, 7, 19, 22 and 41 in sham needling group showed obvious activation. Compared to sham needling group, marked activation points were found in the areas of BA13 and 42 and left cerebellum in true needling group. Our study revealed a marked difference in brain metabolic changes between true and sham needling in Waiguan. Further studies are needed to explore the cerebral changes in patients with acupuncture and the pathological implications.

Am J Epidemiol. 2009 Mar 1;169(5):562-71.

Cost-effectiveness of acupuncture in women and men with allergic rhinitis: a randomized controlled study in usual care.

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To assess quality of life and cost-effectiveness of additional acupuncture treatment for allergic rhinitis, patients were randomly allocated to 2 groups; both received usual care, but one group received an additional 10 acupuncture sessions. Quality of life (according to the SF-36 Health Survey), and direct and indirect costs, were assessed at baseline and after 3 months, and the incremental cost-effectiveness ratio of acupuncture treatment was calculated. This German study (December 2000-June 2004) involved 981 patients (64% women, mean age 40.9 years (standard deviation, 11.2); 36% men, mean age 43.2 years (standard deviation, 13.0)). At 3 months, quality of life was higher in the acupuncture group than in the control group (mean Physical Component Score 51.99 (standard error (SE), 0.33) vs. 48.25 (SE, 0.33), $P < 0.001$; mean Mental Component Score 48.55 (SE, 0.42) vs. 45.35 (SE, 0.42), respectively, $P < 0.001$). Overall costs in the acupuncture group were significantly higher than those in the control group (Euro (euro; 1 euro = US \$1.27) 763, 95% confidence interval: 683, 844 vs. 332 euro, 95% confidence interval: 252, 412; mean difference 432 euro, 95% confidence interval: 318, 545). The incremental cost-effectiveness ratio was 17,377 euro per quality-adjusted life year (women, 10,155 euro; men, 44,871 euro) and was robust in sensitivity analyses. Acupuncture, supplementary to routine care, was beneficial and, according to international benchmarks, cost-effective. However, because of the study design, it remains unclear whether the effects are acupuncture specific.

Asian J Androl. 2009 Mar;11(2):200-8.

Success of acupuncture treatment in patients with initially low sperm output is associated with a decrease in scrotal skin temperature.

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Poor spermatogenesis in patients with inflammation of the genital tract is associated with scrotal hyperthermia. These patients can benefit from acupuncture treatment. We conducted a study to verify whether the influence of acupuncture treatment on sperm output in patients with low sperm density is associated with a decrease in scrotal temperature. The experimental group included 39 men who were referred for acupuncture owing to low sperm output. The control group, which comprised 18 normal fertile men, was used to define a threshold (30.5 degrees C) above which scrotal skin temperature was considered to be high. Accordingly, 34 of the 39 participants in the experimental group initially had high scrotal skin temperature; the other five had normal values. Scrotal skin temperature and sperm concentration were measured before and after acupuncture treatment. The five patients with initially normal scrotal temperatures were not affected by the acupuncture treatment. Following treatment, 17 of the 34 patients with hyperthermia, all of whom had genital tract inflammation, had normal scrotal skin temperature; in 15 of these 17 patients, sperm count was increased. In the remaining 17 men with scrotal hyperthermia, neither scrotal skin temperature nor sperm concentration was affected by the treatment. About 90% of the latter patients suffered from high gonadotropins or mixed etiological factors. Low sperm count in patients with inflammation of the genital tract seems to be associated with scrotal hyperthermia, and, consequently, acupuncture treatment is recommended for these men.

Birth. 2009 Mar;36(1):5-12.

Acupuncture as pain relief during delivery: a randomized controlled trial.

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BACKGROUND: Many women need some kind of analgesic treatment to relieve pain during childbirth. The objective of our study was to compare the effect of acupuncture with transcutaneous electric nerve stimulation (TENS) and traditional analgesics for pain relief and relaxation during delivery with respect to pain intensity, birth experience, and obstetric outcome.

METHODS: A randomised controlled trial was conducted with 607 healthy women in labor at term who received acupuncture, TENS, or traditional analgesics. Primary outcomes were the need for pharmacological and invasive methods, level of pain assessed by a visual analogue scale, birth experience and satisfaction with delivery, and pain relief evaluated at 2 months postpartum. Secondary obstetric outcomes were duration of labor, use of oxytocin, mode of delivery, postpartum hemorrhage, Apgar score, and umbilical cord pH value. Analysis complied with the intention-to-treat principle.

RESULTS: Use of pharmacological and invasive methods was significantly lower in the acupuncture group (acupuncture vs traditional, $p < 0.001$; acupuncture vs TENS, $p = 0.031$). Pain scores were comparable. Acupuncture did not influence the duration of labor or the use of oxytocin. Mean Apgar score at 5 minutes and umbilical cord pH value were significantly higher among infants in the acupuncture group compared with infants in the other groups.

CONCLUSIONS: Acupuncture reduced the need for pharmacological and invasive methods during delivery. Acupuncture is a good supplement to existing pain relief methods.

Fertil Steril. 2009 Mar;91(3):723-6.

The impact of acupuncture on in vitro fertilization outcome.

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OBJECTIVE: To replicate previous research on the efficacy of acupuncture in increasing pregnancy rates (PR) in patients undergoing IVF and to determine whether such an increase was due to a placebo effect.

DESIGN: Prospective, randomized, controlled, single blind trial.

SETTING: Private, academically affiliated, infertility clinic.

PATIENT(S): One hundred fifty patients scheduled to undergo embryo transfer.

INTERVENTION(S): Subjects were randomized to either the acupuncture or control group. Acupuncture patients received the protocol, as first described by Paulus and his colleagues, for 25 minutes before and after embryo transfer. Control subjects laid quietly. All subjects then completed questionnaires on anxiety and optimism. The IVF staff remained blind to subject assignment.

MAIN OUTCOME MEASURE(S): Clinical PRs, anxiety, optimism.

RESULT(S): Before randomization both groups had similar demographic characteristics including age and psychological variables. There were no significant differences in PRs between the two groups. Acupuncture patients reported significantly less anxiety post-transfer and reported feeling more optimistic about their cycle and enjoyed their sessions more than the control subjects.

CONCLUSION(S): The use of acupuncture in patients undergoing IVF was not associated with an increase in PRs but they were more relaxed and more optimistic.

J Altern Complement Med. 2009 Mar;15(3):235-42.

Effects of auricular acupressure on menstrual symptoms and nitric oxide for women with primary dysmenorrhea.

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OBJECTIVES: The aim of this study was to evaluate the effects of auricular acupressure on relieving menstrual symptoms and decreasing nitric oxide (NO) for women with primary dysmenorrhea.

DESIGN: This was a randomized clinical trial comparing the effects of auricular acupressure by seed-pressure method and placebo adhesive patch.

SETTING: Settings included colleges in northern and central Taiwan.

SUBJECTS: Serum CA-125 testing was used as a screening test for primary dysmenorrhea (<35 mg/dL). The study included 36 college females randomized to acupressure group, 35 to control group.

INTERVENTIONS: The acupressure group received auricular acupressure by seed-pressure method on liver (CO12), kidney (CO10), and endocrine (CO18) acupoints. The control group had a plain adhesive patch placed on the same acupoints with no seed attached. Acupressure protocol included massaging 15 times on each acupoint, 3 times a day, for a total of 20 days.

OUTCOME MEASURES: Primary: Short-form Menstrual Distress Questionnaire (MDQs). Secondary: blood sample of NO. Assessments of MDQs and NO were performed at baseline and within the first 2 days of their next menses (after completion of 20 days of acupressure).

RESULTS: In the acupressure group, the overall menstrual symptoms (95% confidence interval CI = -49.8 to -6.5, effect size ES = 0.43, p = 0.01) and two subscales, menstrual pain (95% CI = -16.4 to -2.2, ES = 0.45, p = 0.01) and negative affects (95% CI = -11.9 to 2.0, ES = 0.38, p = 0.04), revealed that menstrual symptoms decreased significantly after auricular acupressure by the seed-pressure method. The ES for the MDQs were in favor of the auricular acupressure by seed-pressure method. NO level increased in the acupressure group, although this difference did not achieve statistical significance (p > 0.05).

CONCLUSIONS: This study supports the effects of auricular acupressure by seed-pressure method in improving menstrual symptoms, and offers a noninvasive complementary therapy for women with primary dysmenorrhea.

Zhen Ci Yan Jiu. 2009 Feb;34(1):52-6.

Effect of transcutaneous acupoint electrical stimulation on lipid peroxidation and cognitive function in patients experiencing craniotomy

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OBJECTIVE: To observe the effect of transcutaneous acupoint electrical stimulation (TAES) on serum superoxide dismutase (SOD) activity, malondialdehyde (MDA) and S100beta contents in craniotomy patients for studying its cerebral protection mechanism.

METHODS: Fifty patients scheduled for neurosurgery were randomly divided into TAES group (n = 25) and control group (n=25) with randomized block method. For patients of TAES group, TAES was applied to bilateral Hegu (LI 4) and Quchi (LI 11), Zusanli (ST 36) and Sanyinjiao (SP 6) from 30 minutes on before anesthesia to the end of operation. Patients of control group were anesthetized with sevoflurane inhalation and intermittent (i.v.) of sulfenany and vecurnium bromide. Blood samples were taken for assaying serum SOD activity, MDA and S100beta contents with purinase oxydasis, biochemiluminescence and enzyme linked immunosorbent assay separately. Scores of cognitive ability were given by using Mini Mental State Examination (MMSE).

RESULTS: In comparison with pre-anesthesia, serum SOD activity decreased significantly 1 h after craniotomy in control group, at the end of operation in both control and TAES groups (P<0.05, P<0.01), and increased markedly 48 h after operation in control group (P<0.05). Serum MDA in control group increased significantly 48 h after operation, while that in TAES group reduced apparently 24 h after operation (P<0.01). Serum S100beta content in TAES group decreased remarkably 48 h after operation (P<0.01). Serum SOD activity of TAES group was significantly higher than that of control group 24 h after operation (P<0.05). Compared with control group, serum MDA contents of 24 h and 48 h after operation and serum S100beta levels at 1 h after craniotomy and 48 h after operation were markedly lower in TAES group (P<0.01, P<0.05). No significant differences were found between two groups in the cognitive function scores (P>0.05).

CONCLUSION: TAES can increase serum SOD activity and reduce MDA and S100beta levels in patients undergoing craniotomy, which may contribute to its effect in reducing lipid peroxidation induced cerebral injury. But its impact on the patient's cognitive function needs study further.

Zhongguo Zhen Jiu. 2009 Feb;29(2):139-44.

Study on electroacupuncture treatment of depression by magnetic resonance imaging

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OBJECTIVE: To explore the changes of metabolites in brain after treatment by analysis on 1H-MRS examination of the hippocampus and prefrontal lobe in the healthy volunteers and the depression patients.

METHODS: Seventy-five cases of mild and moderate depression were randomly divided into groups A, B and C, 25 cases in each group. The group A was treated with oral administration of Prozac capsule, 20 mg/d; the group B by electroacupuncture for 30-40 min and the needle was retained for 1 h, once each day, with main points Baihui (GV 20), Yin-tang (GV 29) and adjuvant acupoints selected; the group C by combination of the treatment methods in the groups A and B. They were treated for 6 weeks. Use PROBE-J sequence at the MRI system on Single Voxel of ROI of each lateral of hippocampus and frontal lobe in the depression patients of the 3 groups. Compare the differences of N-acetylaspartate/creatine (NAA/Cr) and choline/creatine (Cho/Cr) between the healthy volunteers and the patients before and after treatment.

RESULTS: Before treatment, NAA/Cr in the bilateral hippocampus decreased in the 3 groups as compared with the control group, and after treatment, NAA/Cr in the bilateral hippocampus of the group B and in the right hippocampus of the group C increased compared with that before treatment (P < 0.05), and NAA/Cr in the left hippocampus of the group C significantly increased as compared with that before treatment (P < 0.01). Before treatment, Cho/Cr in the bilateral prefrontal lobe in the 3 groups increased as compared with that in the control group (P < 0.05), after treatment, Cho/Cr in the bilateral prefrontal lobes of the groups A, B and C significantly decreased as compared with that before treatment (P < 0.05, P < 0.01).

CONCLUSION: There are differences in contents of metabolites in corresponding parts in bilateral frontal lobes and hippocampus between the depression patient and healthy person.

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Acupuncture for tension-type headache.

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BACKGROUND: Acupuncture is often used for tension-type headache prophylaxis but its effectiveness is still controversial. This review (along with a companion review on 'Acupuncture for migraine prophylaxis') represents an updated version of a Cochrane review originally published in Issue 1, 2001, of The Cochrane Library.

OBJECTIVES: To investigate whether acupuncture is a) more effective than no prophylactic treatment/routine care only; b) more effective than 'sham' (placebo) acupuncture; and c) as effective as other interventions in reducing headache frequency in patients with episodic or chronic tension-type headache.

SEARCH STRATEGY: The Cochrane Pain, Palliative & Supportive Care Trials Register, CENTRAL, MEDLINE, EMBASE and the Cochrane Complementary Medicine Field Trials Register were searched to January 2008.

SELECTION CRITERIA: We included randomized trials with a post-randomization observation period of at least 8 weeks that compared the clinical effects of an acupuncture intervention with a control (treatment of acute headaches only or routine care), a sham acupuncture intervention or another intervention in patients with episodic or chronic tension-type headache.

DATA COLLECTION AND ANALYSIS: Two reviewers checked eligibility; extracted information on patients, interventions, methods and results; and assessed risk of bias and quality of the acupuncture intervention. Outcomes extracted included response (at least 50% reduction of headache frequency; outcome of primary interest), headache days, pain intensity and analgesic use.

MAIN RESULTS: Eleven trials with 2317 participants (median 62, range 10 to 1265) met the inclusion criteria. Two large trials compared acupuncture to treatment of acute headaches or routine care only. Both found statistically significant and clinically relevant short-term (up to 3 months) benefits of acupuncture over control for response, number of headache days and pain intensity. Long-term effects (beyond 3 months) were not investigated. Six trials compared acupuncture with a sham acupuncture intervention, and five of the six provided data for meta-analyses. Small but statistically significant benefits of acupuncture over sham were found for response as well as for several other outcomes. Three of the four trials comparing acupuncture with physiotherapy, massage or relaxation had important methodological or reporting shortcomings. Their findings are difficult to interpret, but collectively suggest slightly better results for some outcomes in the control groups. **AUTHORS'**

CONCLUSIONS: In the previous version of this review, evidence in support of acupuncture for tension-type headache was considered insufficient. Now, with six additional trials, the authors conclude that acupuncture could be a valuable non-pharmacological tool in patients with frequent episodic or chronic tension-type headaches.

Cochrane Database Syst Rev. 2009 Jan 21;(1):CD001218.

Acupuncture for migraine prophylaxis.

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OBJECTIVES: To investigate whether acupuncture is a) more effective than no prophylactic treatment/routine care only; b) more effective than 'sham' (placebo) acupuncture; and c) as effective as other interventions in reducing headache frequency in patients with migraine. **SEARCH STRATEGY:** The Cochrane Pain, Palliative & Supportive Care Trials Register, CENTRAL, MEDLINE, EMBASE and the Cochrane Complementary Medicine Field Trials Register were searched to January 2008.

SELECTION CRITERIA: We included randomized trials with a post-randomization observation period of at least 8 weeks that compared the clinical effects of an acupuncture intervention with a control (no prophylactic treatment or routine care only), a sham acupuncture intervention or another intervention in patients with migraine.

DATA COLLECTION AND ANALYSIS: Two reviewers checked eligibility; extracted information on patients, interventions, methods and results; and assessed risk of bias and quality of the acupuncture intervention. Outcomes extracted included response (outcome of primary interest), migraine attacks, migraine days, headache days and analgesic use. Pooled effect size estimates were calculated using a random-effects model.

MAIN RESULTS: Twenty-two trials with 4419 participants (mean 201, median 42, range 27 to 1715) met the inclusion criteria. Six trials (including two large trials with 401 and 1715 patients) compared acupuncture to no prophylactic treatment or routine care only. After 3 to 4 months patients receiving acupuncture had higher response rates and fewer headaches. The only study with long-term follow up saw no evidence that effects dissipated up to 9 months after cessation of treatment. Fourteen trials compared a 'true' acupuncture intervention with a variety of sham interventions. Pooled analyses did not show a statistically significant superiority for true acupuncture for any outcome in any of the time windows, but the results of single trials varied considerably. Four trials compared acupuncture to proven prophylactic drug treatment. Overall in these trials acupuncture was associated with slightly better outcomes and fewer adverse effects than prophylactic drug treatment. Two small low-quality trials comparing acupuncture with relaxation (alone or in combination with massage) could not be interpreted reliably.

AUTHORS' CONCLUSIONS: In the previous version of this review, evidence in support of acupuncture for migraine prophylaxis was considered promising but insufficient. Now, with 12 additional trials, there is consistent evidence that acupuncture provides additional benefit to treatment of acute migraine attacks only or to routine care. There is no evidence for an effect of 'true' acupuncture over sham interventions, though this is difficult to interpret, as exact point location could be of limited importance. Available studies suggest that acupuncture is at least as effective as, or possibly more effective than, prophylactic drug treatment, and has fewer adverse effects. Acupuncture should be considered a treatment option for patients willing to undergo this treatment.

J Neurol Sci. 2009 Jan 15;276(1-2):143-7.

Effect of acupuncture treatment on spastic states of stroke patients.

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PURPOSES: The control of spasticity is often a significant problem in the management of patients with stroke. The aim of this study was to evaluate the effect of acupuncture treatment on the spastic states of stroke patients.

SETTING: An outpatient Acupuncture Department in the First Teaching Hospital of Tianjin University of Traditional Chinese Medicine. **PARTICIPANTS:** One hundred and thirty-one patients, mean (SD) age of 59 (12) years, with spastic hemiplegia were included at mean (SD) month of 17 (7) months after stroke.

INTERVENTION: Participants received two 30-day treatment regimens: combined stimulating surface projection zone of decussation of pyramid and traditional acupuncture treatment, and traditional acupuncture treatment only.

MAIN OUTCOME MEASURES: Differences in the modified Ashworth scale (MAS), Fugl-Meyer Assessment (FMA), Barthel Index (BI), and the electromyographic activity of the affected extremity between arms.

RESULTS: The average (+/-SD) upper extremity Ashworth score significantly decreased, from 3.08+/-0.77 before treatment to 1.82+/-0.65 after acupuncture intervention (wrist joint, P<0.05), and from 2.72+/-0.59 to 1.32+/-0.71 (elbow joint, P<0.05) for treatment group. There were significant differences noted between the treatment group and control group after administration. Lower extremity treatment responses were similar to upper extremity responses. However, both groups showed similar improvement in FMA (upper extremity) and FMA (lower extremity). However, the improvements of FMA (total), BI, and F/M ratio were better in treatment group than in control group. **CONCLUSIONS:** These results suggested that acupuncture surface projection zone of decussation of pyramid was effective in reducing spastically increased muscle tone and motor neuron excitability in spastic hemiplegia, and could improve spastic states of stroke patients, thus providing a safe and economical method for treating stroke patients.

Am J Chin Med. 2009;37(6):1013-21.

Intradermal acupuncture on shen-men and nei-kuan acupoints improves insomnia in stroke patients by reducing the sympathetic nervous activity: a randomized clinical trial.

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This study is a double-blind randomized controlled trial on the effect of intradermal acupuncture on insomnia after stroke. Hospitalized stroke patients with insomnia were enrolled in the study and were randomly assigned to either a real intradermal acupuncture group (RA group) or a sham acupuncture group (SA group). The RA group received intradermal acupuncture on Shen-Men (He-7) and Nei-Kuan (EH-6) for three days, and the SA group received sham acupuncture on the same points. The effect of acupuncture on insomnia was measured using Insomnia Severity Index (ISI) and Athens Insomnia Scale (AIS) at baseline and three days after treatment. To assess the effect of acupuncture on the autonomic nervous function, the subjects' blood pressure and heart rate variability were monitored. Fifty-two subjects (27 in the RA group and 25 in the SA group) were included in the final analysis. The insomnia-related scales ISI and AIS showed greater improvement of insomnia in the RA group than in the SA group. Moreover, there is a greater reduction of the number of non-dippers and a greater decrease of the LF/HF ratio (heart rate variability) in the RA group than in the SA group. These results indicate that sympathetic hyperactivities were stabilized in the RA group. It can thus be concluded that intradermal acupuncture on Shen-Men and Nei-Kuan is a useful therapeutic method for post stroke-onset insomnia as it reduces sympathetic hyperactivities.

Am J Chin Med. 2009;37(3):483-94.

Acupuncture stimulation improves balance function in stroke patients: a single-blinded controlled, randomized study.

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The disturbance of balance function is one of main etiology resulting in falling down in stroke patients. A number of studies report that acupuncture may improve the motor function of stroke patients. Therefore, the aim of the present study was to investigate the effect of acupuncture on balance function. We designed a single-blinded, controlled, randomized study. A total of 30 stroke patients were randomized into experimental and control groups. Experimental groups received acupuncture treatment accompanied by the manual twisting of needles and obtaining of qi (the subjects experienced sensations of soreness, numbness, swelling and heaviness, while the acupuncturist experienced a sensation of needle resistance), whereas the control group did not receive manual twisting of needles and without obtaining of qi. All of the subjects were first-time stroke patients; infarction location was limited to either the left or right hemisphere, and all subjects were able to walk for at least 6 meters. Acupuncture stimulation (AS) was applied to Baihui (GV 20) acupoint as well as to 4 spirit acupoints (1.5 cun anterior, posterior, left and right laterals from Baihui acupoint, respectively) for 20 min. Balance function outcome measures were: (1) the displacement area of the patient's center of gravity; (2) the time taken for a patient to stand vertically from a seated position; (3) the time taken for a patient to walk a distance of 6 meters; (4) muscle strength of both lower extremities.

RESULTS indicated that the displacement area from the center of gravity decreased in the experimental group, but not in the control group. There was greater reduction in the displacement area in the experimental group than in the control group. Following AS, the time taken to reach a standing position from a seated position, as well as the time taken to walk 6 meters was decreased equally in both the experimental and control groups. The muscle strength of the hip flexor and knee extensor were increased in the paralyzed and non-paralyzed sides of patients in the experimental group, but not in the control group. The results of the present study suggest that acupuncture stimulation may induce an immediate effect that improves balance function in stroke patients.

Am J Chin Med. 2009;37(1):35-43.

Evidence based acupuncture practice recommendations for peripheral facial paralysis.

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The objective is to analyze the treatment used in relatively high quality randomized controlled trials to identify any similarities of therapeutic approaches and subsequently present recommendations for a standard acupuncture procedure for the treatment of peripheral facial paralysis (PFP). We searched Chinese and English language literatures through MEDLINE (January 1966 to October 2007), EMBASE (January 1980 to October 2007), Chinese Biomedical Database (January 1978 to October 2007) and China National Knowledge Infrastructure (January 1979 to October 2007) for randomized controlled trials. With independent assessment by 2 observers, 33 of 386 originally identified articles were finally included. The extracted information from these articles was focused on the selection of meridians and acupoints, types of stimulation and duration of treatment. On the whole, when treating PFP, the best acupoints options are Dicang (ST4), Xiaguan (ST7), Jiache (ST6), Chengjiang (CV24), Yingxiang (LI20), Quanliao (SI18), Yifeng (TE17), Yangbai (GB14), Sibai (ST2), Fengchi (GB20), Shuigou (GV26), Yuyao (EX-HN4) and Hegu (LI4). Manual stimulation or electro-acupuncture combined with moxibustion is recommended. Moreover, the suggested duration of acupuncture treatment refers to once a day, 10 times for each course, 2 to 5 days as courses interval, and 20 to 40 treatments in total.

Am J Hypertens. 2009 Jan;22(1):122-8.

Acupuncture for lowering blood pressure: systematic review and meta-analysis.

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BACKGROUND: We conducted a systematic review to estimate the effect of acupuncture on blood pressure (BP) in hypertensive patients. **METHODS:** Electronic literature searches for randomized controlled trials (RCTs) of acupuncture were performed in six electronic databases to June 2007 without language restrictions.

RESULTS: Eleven RCTs testing acupuncture either as an adjunct or an alternative met our inclusion criteria and they showed a wide variety of methodological quality, mainly due to poor reporting. Three sham-controlled trials out of 11 studies were statistically pooled: systolic BP (SBP) change was not statistically significant (mean difference -5 mm Hg, 95% CI (-12, 1), $P = 0.12$) and acupuncture only marginally reduced diastolic BP (DBP) by 3 mm Hg (95% CI (-6, 0), $P = 0.05$), but substantial heterogeneity was observed ($I(2) = 92\%$ for SBP, $I(2) = 79\%$ for DBP). When given with antihypertensive medication, acupuncture significantly reduced SBP (-8 mm Hg, 95% CI (-10, -5), $P < 0.00001$) and DBP (-4 mm Hg, 95% CI (-6, -2), $P < 0.0001$) and no heterogeneity between studies was detected. Four studies that investigated acupuncture against antihypertensive medication indicated noninferiority of acupuncture in lowering BP, albeit the quality of them was poor, and their sample sizes were not satisfactory as an equivalence study. Other studies comparing acupuncture with various control procedures had inconsistent findings and most of them were of low methodological quality.

CONCLUSIONS: Considering the limitation of the four positive noninferiority studies and the results of the meta-analysis of the three sham-controlled studies, the notion that acupuncture may lower high BP is inconclusive. More rigorous trials are warranted.

J Soc Integr Oncol. 2009 Winter;7(1):4-11.

Pilot, randomized, modified, double-blind, placebo-controlled trial of acupuncture for cancer-related fatigue.

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Cancer-related fatigue is a substantial problem for cancer patients and their caregivers, but no effective treatment exists. Acupuncture has been suggested to improve cancer-related fatigue, but no randomized clinical trials have been conducted. We hypothesized that true acupuncture, compared with sham acupuncture, would reduce cancer-related fatigue in cancer patients receiving external radiation therapy. The aim of this study was to determine effect size and feasibility. A modified, double-blind, randomized, placebo-controlled trial was conducted. The subject, clinical staff, and assessor were blinded, but the acupuncturist was not. Subjects received acupuncture once to twice per week during the 6-week course of radiation therapy. Data were collected at baseline, 3 weeks, 6 weeks, and 10 weeks, which was 4 weeks after that last radiation session. Twenty-seven subjects enrolled, and 23 completed the last data collection. Both true and sham acupuncture groups had improved fatigue, fatigue distress, quality of life, and depression from baseline to 10 weeks, but the differences between the groups were not statistically significant. The true acupuncture group improved 5.50 (SE, +/- 1.48) points on the Functional Assessment of Chronic Illness Therapy-Fatigue Subscale (FACIT-F), whereas the sham acupuncture group improved by 3.73 (SE +/- 1.92) points. This difference was not statistically significant ($p = .37$). All subjects guessed that they were in the true acupuncture group. Our study was underpowered to find a statistically significant difference. To demonstrate a statistically significant improvement between true and sham acupuncture would require 75 subjects per group in a future study. Owing to poor recruitment, the feasibility of a larger trial using the same methodology is low. Despite being underpowered, it appears that subjects receiving true acupuncture may benefit more than subjects receiving sham acupuncture. In the discussion section, we review our experience with using a sham-needle controlled study.

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Effect of acupuncture on blood oxygen saturation in patients of obstructive sleep apnea-hypopnea syndrome

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OBJECTIVE: To investigate the effect of acupuncture on blood oxygen saturation in the patient of obstructive sleep apnea-hypopnea syndrome (OSAHS) in sleeping and to evaluate the therapeutic effect of acupuncture on this disease.

METHODS: Thirty cases with OSAHS were treated with acupuncture at Shanglianquan (Extra), Fengfu (GV 16), Yamen (GV 15), Fengchi (GB 20), etc. 3-5 sessions each week. After treatment of 30 sessions, apnea-hypopnea index (AHI), mean blood oxygen saturation (MSaO₂), the lowest blood oxygen saturation (LSaO₂), oxygen desaturation > or = 4% index (ODI4), the mean blood oxygen saturation of oxygen desaturation when SaO₂ < 90%, the longest time of oxygen saturation > or = 4% were observed before and after treatment.

RESULTS: The effective rate of acupuncture was 23.3% for OSAHS. After acupuncture, AHI and ODI4 significantly reduced ($P < 0.01$); LSaO₂ significantly increased ($P < 0.01$); MSaO₂ and the mean blood oxygen saturation of oxygen desaturation when SaO₂ < 90% significantly enhanced ($P < 0.05$); the longest time of oxygen saturation > or = 4% did not significantly change.

CONCLUSION: The acupuncture treatment has interventional effect on OSAHS and alleviates anoxia, so acupuncture is one of therapies improving anoxia in patients of OSAHS.

Zhongguo Zhen Jiu. 2009 Jan;29(1):3-6.

Therapeutic effect of acupuncture on cisplatin-induced nausea and vomiting

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OBJECTIVE: To observe therapeutic effect of acupuncture combined with antiemetic on cisplatin-induced nausea and vomiting.

METHODS: By using paired, cross-controlled trial design, 66 cases of chemotherapy were divided into group A and B, 33 cases in each group. For the group A, chemotherapy, tropisetron and acupuncture therapy were adopted in the first chemotherapy cycle and the same chemotherapy program, tropisetron and sham acupuncture were used in the next cycle. For the group B, chemotherapy, tropisetron and sham acupuncture were given in the first chemotherapy cycle and the same chemotherapy program, tropisetron and acupuncture therapy were applied in the next cycle. Zusanli (ST 36), Neiguan (PC 6) and Gongsun (SP 4) and auricular point Wei (stomach) were selected for acupuncture therapy, and the points at 3 cm lateral to Zusanli (ST 36), Neiguan (PC 6) and Gongsun (SP 4) and auricular point corresponding to scapha level were selected for sham acupuncture. Acupuncture treatment or sham-acupuncture was given for 6 consecutive days, once each day and antiemetic tropisetron 5 mg was given to the two groups as basic antiemetic prophylaxis for 6 days, once daily. The therapeutic effects on nausea and vomiting in the 6 days were compared between the acupuncture group and the sham-acupuncture group in the two chemotherapeutic cycles.

RESULTS: The effective rates for nausea in the 2nd day and the 4th day were 87.1% and 79.0% in acupuncture group, which were superior to 59.4% and 57.8% in the sham-acupuncture group, respectively (both $P < 0.05$); and the therapeutic effects on vomiting in the 3rd-6th day in the acupuncture group were better than those in the sham-acupuncture group ($P < 0.05$).

CONCLUSION: Acupuncture combined with antiemetic can effectively decrease the incidence and degree of cisplatin-induced delayed nausea and vomiting. The effect of acupuncture is better than that of sham acupuncture.