英国中医药学会

The Association of Traditional Chinese Medicine and Acupuncture UK

TCM Research Updates

Issue No 16

1st October 2015

Contents

Out-of-Pocket Expenditures on Complementary Health Approaches Associated with Painful Health Conditions in a Nationally Representative Adult Sample.

http://www.ncbi.nlm.nih.gov/pubmed/26320946

J Pain. 2015 Aug 27. pii: S1526-5900(15)00836-6.

By Nahin RL

Abstract

National surveys suggest that millions of adults in the United States use complementary health approaches such as acupuncture, chiropractic manipulation, and herbal medicines to manage painful conditions such as arthritis, back pain and fibromyalgia. Yet, national and per person out-of-pocket (OOP) costs attributable to this condition-specific use are unknown. In the 2007 National Health Interview Survey, use of complementary health approaches, reasons for this use, and associated OOP costs were captured in a nationally representative sample of 5,467 adults. Ordinary least square regression models that controlled for co-morbid conditions were used to estimate aggregate and per person OOP costs associated with 14 painful health conditions. Individuals using complementary approaches spent a total of $14.9 billion (S.E. $0.9 billion) OOP on these approaches to manage these painful conditions. Total OOP expenditures seen in those using complementary approaches for their back pain ($8.7 billion, S.E. $0.8 billion) far outstripped that of any other condition, with the majority of these costs ($4.7 billion, S.E. $0.4 billion) resulting from visits to complementary providers. Annual condition-specific per-person OOP costs varied from a low of $568 (SE $144) for regular headaches, to a high of $895 (SE $163) for fibromyalgia.

PERSPECTIVE:
Adults in the United States spent $14.9 billion OOP on complementary health approaches (e.g., acupuncture, chiropractic, herbal medicines) to manage painful conditions including back pain ($8.7 billion). This back pain estimate is almost 1/3rd of total conventional healthcare expenditures for back pain ($30.4 billion) and 2/3^{rds} higher than conventional OOP expenditures ($5.1 billion).

Effectiveness of complementary pain treatment for women with deep endometriosis through Transcutaneous Electrical Nerve Stimulation (TENS): randomized controlled trial.

http://www.ncbi.nlm.nih.gov/pubmed/26319650

Eur J Obstet Gynecol Reprod Biol. 2015 Aug 6;194:1-6.

By Mira TA

Abstract

OBJECTIVE:
Evaluate TENS effectiveness as a complementary treatment of chronic pelvic pain and deep dyspareunia in women with deep endometriosis.

STUDY DESIGN:
This randomized controlled trial was performed in a tertiary health care center, including twenty-two women with deep endometriosis undergoing hormone therapy with persistent pelvic pain and/or deep dyspareunia. This study was registered in the Brazilian Record of Clinical Trials (ReBEC), under n RBR-3rndh6. TENS

application for 8 weeks followed a randomized allocation into two groups: Group 1 - acupuncture-like TENS (Frequency: 8Hz, pulse duration: 250μs) - VIF (n=11) and Group 2 - self-applied TENS (Frequency: 85Hz, pulse duration: 75μs) (n=11). The intensity applied was "strong, but comfortable". We evaluated patients before and after treatment by the use of the Visual Analogue Scale, Deep Dyspareunia Scale and Endometriosis Quality of Life Questionnaire. We used the Wilcoxon and Mann-Whitney tests to compare before and after treatment conditions.

RESULTS:

Despite the use of hormone therapy for 1.65±2.08 years, the 22 women with deep endometriosis sustained pelvic pain complaints (VAS=5.95±2.13 and 2.45±2.42, p<.001) and/or deep dyspareunia (DDS=2.29±0.46 and 1.20±1.01, p=.001). We observed significant improvement for chronic pelvic pain, deep dyspareunia and quality of life by the use of TENS. Both application types of TENS were effective for improving the evaluated types of pain.

CONCLUSIONS:

Both resources (acupuncture-like TENS and self-applied TENS) demonstrated effectiveness as a complementary treatment of pelvic pain and deep dyspareunia, improving quality of life in women with deep endometriosis regardless of the device used for treatment.

Effects of Miniscalpel-Needle Release on Chronic Neck Pain: A Retrospective Analysis with 12-Month Follow-Up.

http://www.ncbi.nlm.nih.gov/pubmed/26322786

PLoS One. 2015 Aug 31;10(8):e0137033.

By Li S

Abstract

OBJECTIVE:

Chronic neck pain is a highly prevalent condition, and is often treated with non-steroidal anti-inflammatory drugs. Limited clinical studies with short-term follow-up have shown promising efficacy of acupuncture as well as miniscalpel-needle (MSN) release. In this retrospective study, we examined whether MSN release could produce long-lasting relief in patients with chronic neck pain.

METHODS:

We retrieved the medical records of all patients receiving weekly MSN release treatment for chronic neck pain at this institution during a period from May 2012 to December 2013. Only cases with the following information at prior to, and 1, 6, and 12 months after the treatment, were included in the analysis: neck disability index (NDI), numerical pain rating scale (NPRS), and active cervical range of motion (CROM). The primary analysis of interest is comparison of the 12-month measures with the baseline. Patients who took analgesic drugs or massage within 2 weeks prior to assessment were excluded from the analysis. For MSN release, tender points were identified manually by an experienced physician, and did not necessarily follow the traditional acupuncture system. MSN was inserted vertically (parallel to the spine) until breaking through resistance and patient reporting of distention, soreness or heaviness. The depth of the needling ranged from 10 to 50 mm. The release was carried out by moving the MSN up and down 3-5 times without rotation.

RESULTS:

A total of 559 cases (patients receiving weekly MSN release treatment for chronic neck pain) were screened. The number of cases with

complete information (NDI, NPRS, and CROM at baseline, 1, 6 and 12 months after last treatment) was 180. After excluding the cases with analgesic treatment or massage within 2 weeks of assessment (n = 53), a total of 127 cases

were included in data analysis. The number of MSN release session was 7 (range: 4-11). At 12 months after the treatment, both NPRS and NDI were significantly lower [3 (0, 9) vs. 7 (5, 10) at the baseline for NPRS; [7 (0, 21) vs. 17 (9, 36) for NDI; $p<0.001$ for both]. All 6 measures of CROM were significantly higher at 12 months vs.

the baseline. No severe complications (such as nerve damage and hematoma) were noted.

DISCUSSION:

MSN release is effective, even 12 months after the treatment, in patients with chronic neck pain. Caution must be exercised in data interpretation due to the respective nature of the study and lack of a comparator group.

Behavioral and biochemical effects of pharmacopuncture (ST 36 and ST 25) in obese rats.

http://www.ncbi.nlm.nih.gov/pubmed/26314894
BMC Complement Altern Med. 2015 Aug 28;15:297

By Pontes MC

Abstract

BACKGROUND:

Acupuncture has been reported as a weight loss treatment for obese patients. The use of pharmacopuncture focusing on behavioral analyses has not yet been studied with the objective of treating obesity. Thus, this study aimed to assess the biochemical and behavioral effects of using pharmacopuncture techniques in obese Wistar rats.

METHODS:

The treatments consisted in applying pharmacopuncture at the Zusanli (ST 36) and Tianshu (ST 25) points.

RESULTS:

When treated with pharmacopuncture, groups HDP36 and HDP25 experienced a reduction in body weight compared to the controls, who were also fed a hypercaloric diet. In the alimentary behavior test, latency to feed did not differ between the groups. However, groups HDP36 and HDP25 consumed a smaller number of cereals bits, which suggests that inappetence was an effect of the treatment. No difference was found among the groups in the elevated plus maze test, which indicates no anxiety action of the points studied. Regarding post mortem perirenal and abdominal fat among the groups fed a hypercaloric diet, groups HDP36 and HDP25 had lower perirenal fat weight and HDP36 had lower abdominal fat weight compared to the other groups. Likewise, a reduction in cholesterol 10.1186/s12906-015-0829-7 and glucose levels was found in groups HDP36 and HDP25 compared to the other groups that were fed a hypercaloric diet, while triglycerides decreased in subgroup HDP25 CONCLUSIONS: In conclusion, the present study showed the efficacy of pharmacopuncture in weight loss of obese rats, as well as changes in biochemical and behavioral parameters.

Acupuncture for pain control after Caesarean section: a prospective observational pilot study.

http://www.ncbi.nlm.nih.gov/pubmed/26307554

Acupunct Med. 2015 Aug 25. pii: acupmed-2015-010852

By Hesse T

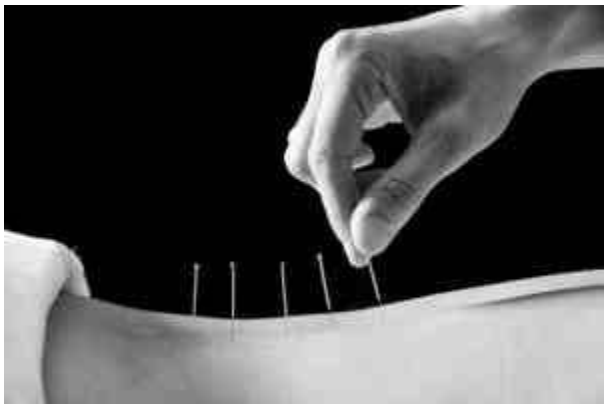
Abstract

OBJECTIVE:
Options for pharmacological analgesia in patients who have undergone Caesarean section (CS) are often restricted. Acupuncture is a promising tool for treating postoperative pain. We aimed to study the feasibility and acceptability of acupuncture as an additional method of analgesia in CS patients in a prospective observational pilot investigation.

METHODS:
Twenty-two patients scheduled for elective CS under spinal anaesthesia were enrolled according to set inclusion criteria. Each patient received auricular and body acupuncture with 20 indwelling fixed needles according to previously validated protocols of acupuncture for postoperative analgesia. Pain intensity on an 11-point verbal rating scale (VRS-11, where 0=no pain and 10=maximal pain), analgesia-related side effects, time to mobilisation and Foley catheter removal after CS, and patients' compliance and satisfaction with treatment of pain on a 5-point VRS (VRS-5, where 1=excellent; 5=bad) were recorded.

RESULTS:
Twenty patients were included in the final analysis. One patient was disturbed by paraesthesia at the site of needling. All other patients tolerated acupuncture well. Pain intensity on movement on the first postoperative day was 4.3±2.4 (mean±SD; VRS-11) and decreased to 2.2±1.2 on the day of discharge. Patient satisfaction was 1.9±0.8 (mean±SD; VRS-5) and compliance (rated by their nurses) was 1.5±0.5 (mean±SD; VRS-5).

CONCLUSIONS:
Acupuncture for additional analgesia after CS was well accepted. The primary outcome measurement was feasible and allowed the sample size to be calculated for a future randomised controlled trial.



Is Acupuncture Efficacious for Treating Phonotraumatic Vocal Pathologies? A Randomized Control Trial.

http://www.ncbi.nlm.nih.gov/pubmed/26298839

J Voice. 2015 Aug 19. pii: S0892-1997(15) 00152-6.

By Yiu EM

Abstract

OBJECTIVES:
To investigate the effectiveness of acupuncture in treating phonotraumatic vocal fold lesions.

STUDY DESIGN/METHODS:
A total of 123 dysphonic individuals with benign vocal pathologies were recruited. They were given either genuineacupuncture (n = 40), sham acupuncture (n = 44), or no treatment (n = 39) for 6 weeks (two 30-minute sessions/wk). The genuine acupuncture group received needles puncturing nine voice-related acupoints for 30 minutes, two times a week for 6 weeks, whereas the sham acupuncture group received blunted needles stimulating the skin surface of the nine acupoints for the same frequency and duration. The no-treatment group did not receive any intervention but attended just the assessment sessions. One-hundred seventeen subjects completed the study (genuineacupuncture = 40; sham acupuncture = 43; and no treatment = 34), but only 84 of them had a complete set of vocal functions and quality of life measures (genuine acupuncture = 29; sham acupuncture = 33; and no-treatment = 22) and 42 of them with a complete set of endoscopic data (genuine acupuncture = 16; sham acupuncture = 15; and no treatment = 11).

RESULTS:
Significant improvement in vocal function, as indicated by the maximum fundamental frequency produced, and also perceived quality of life, were found in both the genuine and sham acupuncture groups, but not in the no-treatment group. Structural (morphological) improvements were, however, only noticed in the genuine acupuncture group, which demonstrated a significant reduction in the size of the vocal fold lesions.

CONCLUSIONS:
The findings showed that acupuncture of voice-related acupoints could bring about improvement in vocal function and healing of vocal fold lesions.

Immediate effects of acupuncture on tongue pressure including swallowing reflex latency in Parkinson's disease.

http://www.ncbi.nlm.nih.gov/pubmed/26296358

Acupunct Med. 2015 Aug 21. pii: acupmed-2015-010811

By Fukuda S

Abstract

BACKGROUND:
It is important to evaluate tongue function in terms of its clinical implications for swallowing ability. Motor dysfunction and loss of coordination of the tongue are frequently seen,

and this influences the oral and pharyngeal phases of swallowing. The purpose of this pilot study was to evaluate the effect of a single acupuncture treatment for tongue pressure in Parkinson's disease.

METHODS:
A total of 13 patients, aged 57- 84 years, were recruited. Tongue pressure was measured using a tongue pressure manometer. Furthermore, swallowing reflex latency was measured in 3 of the 13 patients.

RESULTS:
Significant changes were seen after acupuncture in mean tongue pressure, which increased from 23.1 to 26.7 kPa ($p<0.01$). Reductions were seen after acupuncture in mean swallowing reflex latency (from 5.2 to 4.6 s for first saliva swallow; from 19.9 to 15.7 s for second saliva swallow; and from 10.4 to 5.7 s for third saliva swallow(s)).

CONCLUSIONS:
Our study's findings suggest that acupuncture may be useful for improving oral cavity function, but further controlled trials are needed.

Effect of electro-acupuncture on gene expression in heart of rats with stress-induced pre-hypertension based on gene chip technology.

http://www.ncbi.nlm.nih.gov/pubmed/26237832

J Tradit Chin Med. 2015 Jun;35(3):285-94

By Guo Y

Abstract

OBJECTIVE:
To explore electro-acupuncture's (EA's) effect on gene expression in heart of rats with stress-induced pre-hypertension and try to reveal its biological mechanism based on gene chip technology.

METHODS:
Twenty-seven Wistar male rats were randomly divided into 3 groups. The stress-induced hypertensive rat model was prepared by electric foot-shocks combined with generated noise. Molding cycle lasted for 14 days and EA intervene was applied,on rats in model + EA group during model preparation. Rat Gene 2.0 Sense Target Array technology was used for the determination of gene expression profiles and the screened key genes were verified by real-time quantitative polymerase chain reaction (RT-PCR) method.

RESULTS:
Compared with blank control group, 390 genes were changed in model group; compared with model control group, 330 genes were changed in model+EA group. Significance analysis of gene function showed that the differentially expressed genes are those involved in biological process, molecular function and cellular components. RT-PCR result of the screened key genes is consistent with that of gene chip test.

CONCLUTION:
EA could significantly lower blood pressure of stress-induced pre-hypertension rats and affect its gene expression profile in heart. Genes that related to the contraction of vascular smooth muscle may be involved in EA's anti-hypertensive mechanism.

Effects of electro-acupuncture at Tongli (HT 5) and Xuanzhong (GB 39) acupoints from functional magnetic resonance imaging evidence.

http://www.ncbi.nlm.nih.gov/pubmed/26129898

Chin J Integr Med. 2015 Jun 30

By Xiao J

Abstract

OBJECTIVE:
To explore the specificity of Tongli (HT 5) and Xuanzhong (GB 39) paired acupionts in aspects of Deqi sensation and brain activation patterns during electroacupuncture.

METHODS:
In this study, 15 healthy subjects were enrolled. All participants suffered two kinds of functional magnetic resonance imaging (fMRI) examinations randomly: Examination A received electro-acupuncture (EA) at the bilateral Tongli (HT5) and Xuanzhong (GB 39) acupoints (ACU), and examination B received EA at bilateral non-acupoints (NAP). The subjects reported the feeling of Deqi at each examination later respectively. A multi-voxel pattern analysis method and Statistical Program for Social Sciences were used to analyze the data.

RESULTS:
The ACU group (Exam A) reported fullness, heaviness, numbness, soreness and throbbing of significantly greater intensity than the NAP group (Exam B). In addition, there was no statistical significance between two groups in aching, tingling, deep pressure, sharp pain, dull pain, warmness and cold. Meanwhile, fMRI data revealed differences between two groups in discriminating accuracy of brain somatosensory cortex and language-related cortices.

CONCLUSION:
Needling HT 5 and GB 39 may modulate language function through a complex brain network, suggesting that it may be beneficial to the recovery of language function in patients with aphasia.