

英国中医药学会

The Association of Traditional Chinese Medicine and Acupuncture UK

ATCM Research Updates

Issue No 22

1st April 2017



Contents

1. Evoked Pressure Pain Sensitivity Is Associated with Differential Analgesic Response to Verum and Sham Acupuncture in Fibromyalgia.
2. Effect of Acupuncture on Postoperative Ileus after Distal Gastrectomy for Gastric Cancer.
3. Rewiring the primary somatosensory cortex in carpal tunnel syndrome with acupuncture.
4. Complete response to acupuncture therapy in female patients with refractory interstitial cystitis/bladder pain syndrome.
5. Electroacupuncture Promotes CNS-Dependent Release of Mesenchymal Stem Cells.
6. Acupuncture Attenuated Vascular Dementia-Induced Hippocampal Long-Term Potentiation Impairments via Activation of D1/D5 Receptors.
7. Acupuncture in Patients with Allergic Asthma: A Randomized Pragmatic Trial.
8. Electroacupuncture improves gait locomotion, H-reflex and ventral root potentials of spinal compression injured rats.
9. Acupuncture reduces relapse to cocaine-seeking behaviour via activation of GABA neurons in the ventral tegmental area.
10. Acupuncture Attenuates Renal Sympathetic Activity and Blood Pressure via Beta-Adrenergic Receptors in Spontaneously Hypertensive Rats.
11. The effect of acupuncture on chemotherapy-associated gastrointestinal symptoms in gastric cancer.
12. A Single Case of Tourette's Syndrome Treated with Traditional Chinese Medicine.
13. Auricular Acupuncture Analgesia in Thoracic Trauma: A Case Report.

Evoked Pressure Pain Sensitivity Is Associated with Differential Analgesic Response to Verum and Sham Acupuncture in Fibromyalgia.

<https://www.ncbi.nlm.nih.gov/pubmed/28340147>

Pain Med. 2017 Mar 15. doi: 10.1093/pm/pnx001.

By Zucker NA, Tsodikov A, Mist SD, Cina S, Napadow V, Harris RE.

Abstract

OBJECTIVE:

Fibromyalgia is a chronic pain condition with few effective treatments. Many fibromyalgia patients seek acupuncture for analgesia; however, its efficacy is limited and not fully understood. This may be due to heterogeneous pathologies among participants in acupuncture clinical trials. We hypothesized that pressure pain tenderness would differentially classify treatment response to verum and sham acupuncture in fibromyalgia patients.

DESIGN:

Baseline pressure pain sensitivity at the thumbnail at baseline was used in linear mixed models as a modifier of differential treatment response to sham versus verum acupuncture. Similarly, needle-induced sensation was also analyzed to determine its differential effect of treatment on clinical pain.

METHODS AND PATIENTS:

A cohort of 114 fibromyalgia patients received baseline pressure pain testing and were randomized to either

verum (N = 59) or sham (N = 55) acupuncture. Participants received treatments from once a week to three times a week, increasing in three-week blocks for a total of 18 treatments. Clinical pain was measured on a 101-point visual analog scale, and needle sensation was measured by questionnaire throughout the trial.

RESULTS:

Participants who had higher pain pressure thresholds had greater reduction in clinical pain following verum acupuncture while participants who had lower pain pressure thresholds showed better analgesic response to sham acupuncture. Moreover, patients with lower pressure pain thresholds had exacerbated clinical pain following verum acupuncture. Similar relationships were observed for sensitivity to acupuncture needling.

CONCLUSIONS:

These findings suggest that acupuncture efficacy in fibromyalgia may be underestimated

and a more personalized treatment for fibromyalgia may also be possible.

Effect of Acupuncture on Postoperative Ileus after Distal Gastrectomy for Gastric Cancer.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5362830/>

J Gastric Cancer. 2017 Mar;17(1):11-20. doi: 10.5230/jgc.2017.17.e2.

By Jung SY, Chae HD, Kang UR, Kwak MA, Kim IH.

Abstract

PURPOSE:

Acupuncture has recently been accepted as a treatment option for managing postoperative ileus (POI) and various functional gastrointestinal disorders. Therefore, we conducted a prospective randomized study to evaluate the effect of acupuncture on POI and other surgical outcomes in patients who underwent gastric surgery.

MATERIALS AND METHODS:

Thirty-six patients who underwent distal gastrectomy for gastric cancer from March to December 2015 were randomly assigned to acupuncture or non-acupuncture (NA) groups at 1:1 ratio. The acupuncture treatment was administered treatment once daily for 5 consecutive days starting at postoperative day 1. The primary outcome measure was the number of remnant sitz markers in the small intestine on abdominal radiograph. The secondary outcome measure was the surgical outcome, including the

times to first flatus, first defecation, start of water intake, and start of soft diet, as well as length of hospital stay and laboratory findings.

RESULTS:

The acupuncture group had significantly fewer remnant sitz markers in the small intestine on postoperative days 3 and 5 compared to those in the NA group. A significant difference was observed in the numbers of remnant sitz markers in the small intestine with respect to group differences by time ($P < 0.0001$). The acupuncture group showed relatively better surgical outcomes than those in the NA group, but the differences were not statistically significant.

CONCLUSIONS:

In this clinical trial, acupuncture promoted the passage of sitz markers, which may reflect the possibility of reducing POI after distal gastrectomy.

Rewiring the primary somatosensory cortex in carpal tunnel syndrome with acupuncture.

<https://www.ncbi.nlm.nih.gov/pubmed/28334999>

Brain. 2017 Mar 2. doi: 10.1093/brain/awx015.

By Maeda Y, Kim H, Kettner N, Kim J, Cina S, Malatesta C, Gerber J, et al.,

Abstract

Carpal tunnel syndrome is the most common entrapment neuropathy, affecting the median nerve at the wrist. Acupuncture is a minimally-invasive and conservative therapeutic option, and while rooted in a complex practice ritual, acupuncture overlaps significantly with many conventional peripherally-focused neuromodulatory therapies. However, the neurophysiological mechanisms by which acupuncture impacts accepted subjective/psychological and objective/physiological outcomes are not well understood. Eligible patients (n = 80, 65 female, age: 49.3 ± 8.6 years) were enrolled and randomized into three intervention arms: (i) verum electro-acupuncture 'local' to the more affected hand; (ii) verum electro-acupuncture at 'distal' body sites, near the ankle contralesional to the more affected hand; and (iii) local sham electro-acupuncture using non-penetrating placebo needles. Acupuncture therapy was provided for 16 sessions over 8 weeks. Boston Carpal Tunnel Syndrome Questionnaire assessed pain and paraesthesia symptoms at baseline,

following therapy and at 3-month follow-up. Nerve conduction studies assessing median nerve sensory latency and brain imaging data were acquired at baseline and following therapy. Functional magnetic resonance imaging assessed somatotopy in the primary somatosensory cortex using vibrotactile stimulation over three digits (2, 3 and 5). While all three acupuncture interventions reduced symptom severity, verum (local and distal) acupuncture was superior to sham in producing improvements in neurophysiological outcomes, both local to the wrist (i.e. median sensory nerve conduction latency) and in the brain (i.e. digit 2/3 cortical separation distance). Moreover, greater improvement in second/third interdigit cortical separation distance following verum acupuncture predicted sustained improvements in symptom severity at 3-month follow-up. We further explored potential differential mechanisms of local versus distal acupuncture using diffusion tensor imaging of white matter microstructure adjacent to the primary

somatosensory cortex. Compared to healthy adults ($n = 34$, 28 female, 49.7 ± 9.9 years old), patients with carpal tunnel syndrome demonstrated increased fractional anisotropy in several regions and, for these regions we found that improvement in median nerve latency was associated with reduction of fractional anisotropy near (i) contralesional hand area following sham, but not local, acupuncture; (ii) ipsilesional hand area following local, but not distal or sham, acupuncture; and (iii) ipsilesional leg area following distal, but not local or

sham, acupuncture. As these primary somatosensory cortex subregions are distinctly targeted by local versus distal acupuncture electrostimulation, a cupuncture at local versus distal sites may improve median nerve function at the wrist by somatotopically distinct neuroplasticity in the primary somatosensory cortex following therapy. Our study further suggests that improvements in primary somatosensory cortex somatotopy can predict long-term clinical outcomes for carpal tunnel syndrome.

Complete response to acupuncture therapy in female patients with refractory interstitial cystitis/bladder pain syndrome.

<https://www.ncbi.nlm.nih.gov/pubmed/28326514>

Ginekol Pol. 2017;88(2):61-67. doi: 10.5603/GP.a2017.0013.

By Sönmez MG¹, Kozanhan B.

Abstract

OBJECTIVES:

Interstitial Cystitis/Bladder Pain syndrome (IC/BPS) is a considerable issue in urology and gynecology and unfortunately, the treatment options recommended are not fully efficient. Therefore, in this study we aimed to determine the effectiveness of acupuncture treatment in patients with refractory IC/BPS.

MATERIAL AND METHODS:

12 refractory IC/BPS female patients received ten sessions

of acupuncture twice a week. The visual analog score (VAS), interstitial cystitis symptom index (ICSI), interstitial cystitis problem index (ICPI), O'Leary-Saint symptom score (OSS), Patient Health Questionnaire (PHQ9), Pelvic pain and urgency & frequency patient symptom scale tests (PUF) and maximum voided volume (MVV) was completed in 1st, 3rd, 6th and 12th months following the treatment.

RESULTS:

ATCM Suite 10, Brentano House, Unit 5 The Exchange, Brent Cross Gardens. NW4 3RJ Tel 020 84572560 Email: info@atcm.co.uk Website: www.atcm.co.uk

There was a statistically significant decrease in all of the scores evaluated at first month compared with the baseline. While the change in VAS score in 1, 3, 6 and 12th months were found statistically significant, measurements of ICSI, OSS and PUF scores and MVV values in the 6th and 12th months and ICPI and PHQ scores in the 12th month were not found statistically significant compared to the pre-treatment period. Response to treatment for the first three months

after acupuncture application was (100%), but this ratio was measured as 33.3% (4/12) in the sixth month and 16.6% in the 12th month (2/12).

CONCLUSIONS:

The results of this study suggest that acupuncture appears to be an effective, useful, non-invasive method in IC/BPS patients. It can be used as an appropriate treatment method not only in refractory but also in IC patients since it is rather advantageous compared to other treating agents.

Electroacupuncture Promotes CNS-Dependent Release of Mesenchymal Stem Cells.

<https://www.ncbi.nlm.nih.gov/pubmed/28299842>

Stem Cells. 2017 Mar 16. doi: 10.1002/stem.2613.

By Salazar TE, Richardson MR, Beli E, Ripsch MS, George J, Kim Y, et al.,

Abstract

Electro-acupuncture (EA) performed in rats and humans using front-limb acupuncture sites, LI-4 and LI-11, and Du-14 and Du-20 increased functional connectivity between the anterior hypothalamus and the amygdala and mobilized mesenchymal stem cells (MSC) into the systemic circulation. In human subjects, the source of the MSC was found to be primarily adipose tissue whereas in rodents the tissue sources were considered more heterogeneous. Pharmacological disinhibition of rat hypothalamus enhanced sympathetic

nervous system (SNS) activation and similarly resulted in a release of MSC into the circulation. EA-mediated SNS activation was further supported by browning of white adipose tissue in rats. EA treatment of rats undergoing partial rupture of the Achilles tendon resulted in reduced mechanical hyperalgesia, increased serum IL-10 levels and tendon remodeling, effects blocked in propranolol-treated rodents. To distinguish the afferent role of the peripheral nervous system, phosphoinositide-interacting regulator of transient receptor potential channels

(Pirt)-GCaMP3 (genetically encoded calcium sensor) mice were treated with EA directed at hind limb immune points, ST-36 and Liv-3 and resulted in a rapid activation of primary sensory neurons. EA activated sensory ganglia

and SNS centers to mediate the release of MSC that can enhance tissue repair, increase anti-inflammatory cytokine production and provide pronounced analgesic relief.

Acupuncture Attenuated Vascular Dementia-Induced Hippocampal Long-Term Potentiation Impairments via Activation of D1/D5 Receptors.

<https://www.ncbi.nlm.nih.gov/pubmed/28289242>

Stroke. 2017 Apr;48(4):1044-1051. doi: 10.1161/STROKEAHA.116.014696.

By Ye Y, Li H, Yang JW, Wang XR, Shi GX, Yan CQ, Ma SM, Zhu W, et al.,

Abstract

BACKGROUND AND PURPOSE:

Emerging evidence suggests that acupuncture could improve cognitive impairment in vascular dementia by enhancing synaptic plasticity in the hippocampus. The purpose of this study is to investigate whether dopamine, a key mediator of synaptic plasticity, is involved in this cognitive improvement.

METHODS:

Vascular dementia model was established by bilateral common carotid arteries occlusion in male Wistar rats. Three days after the operation, animals received acupuncture treatment for 2 weeks, once daily. The D1/D5 receptors antagonist SCH23390 was administered intraperitoneally 15 minutes before

each acupuncture treatment. Morris water maze was examined after acupuncture. Long-term potentiation was studied by an electrophysiological technique. Dopamine and metabolites levels were detected by microdialysis and high-performance liquid chromatography from brain tissue. The expression of D1R and D5R was analyzed by immunofluorescence.

RESULTS:

Acupuncture remarkably reversed cognitive deficits in 2-vessel occlusion model (2VO) rats, and the acupuncture points Zusanli (ST36) and Baihui (GV20) were confirmed to be the most effective combination. Electrophysiological recording data showed that 2VO-induced impairments of long-term potentiation were

prevented by acupuncture. In addition, acupuncture promoted the release of dopamine and its major metabolites in the hippocampus of 2VO rats. The immunofluorescence experiment showed that the decrease of D1R and D5R in hippocampal dentate gyrus region of 2VO rats was reversed by acupuncture. Furthermore, we found that the effects

of acupuncture against 2VO-induced impairments in cognition and synaptic plasticity were abolished by SCH23390.

CONCLUSIONS:

Improvement in cognition and hippocampal synaptic plasticity induced by acupuncture was achieved via activation of D1/D5 receptors in 2VO rats.

Acupuncture in Patients with Allergic Asthma: A Randomized Pragmatic Trial.

<https://www.ncbi.nlm.nih.gov/pubmed/28287818>

J Altern Complement Med. 2017 Mar 13. doi: 10.1089/acm.2016.0357.

By Brinkhaus B, Roll S, Jena S, Icke K, Adam D, Binting S, Lotz F, et al.,

Abstract

BACKGROUND:

Although the available evidence is insufficient, acupuncture is used in patients suffering from chronic asthma. The aim of this pragmatic study was to investigate the effectiveness of acupuncture in addition to routine care in patients with allergic asthma compared to treatment with routine care alone.

METHODS:

Patients with allergic asthma were included in a randomized controlled trial and randomized to receive up to 15 acupuncture sessions over 3 months or to a control group receiving routine care alone. Patients who did

not consent to randomization received acupuncture treatment for the first 3 months and were followed as a cohort. All trial patients were allowed to receive routine care in addition to study treatment. The primary endpoint was the asthma quality of life questionnaire (AQLQ, range: 1-7) at 3 months. Secondary endpoints included general health related to quality of life (Short-Form-36, SF-36, range 0-100). Outcome parameters were assessed at baseline and at 3 and 6 months.

RESULTS:

A total of 1,445 patients (mean age 43.8 [SD 13.5] years, 58.7% female) were randomized and included in the

analysis (184 patients randomized to acupuncture and 173 to control, and 1,088 in the nonrandomized acupuncture group). In the randomized part, acupuncture was associated with an improvement in the AQLQ score compared to the control group (difference acupuncture vs. control group 0.7 [95% confidence interval (CI) 0.5-1.0]) as well as in the physical component scale and the mental component scale of the SF-36 (physical: 2.5 [1.0-4.0]; mental 4.0

[2.1-6.0]) after 3 months. Treatment success was maintained throughout 6 months. Patients not consenting to randomization showed similar improvements as the randomized acupuncture group.

CONCLUSIONS:

In patients with allergic asthma, additional acupuncture treatment to routine care was associated with increased disease-specific and health-related quality of life compared to treatment with routine care alone.

Electroacupuncture improves gait locomotion, H-reflex and ventral root potentials of spinal compression injured rats.

<https://www.ncbi.nlm.nih.gov/pubmed/28274815>

Brain Res Bull. 2017 Mar 6;131:7-17. doi: 10.1016/j.brainresbull.2017.02.008.

By Escobar-Corona C, Torres-Castillo S, Rodríguez-Torres EE, et al.,

Abstract

This study explored the effect of electroacupuncture stimulation (EA) on alterations in the Hoffman reflex (H-reflex) response and gait locomotion provoked by spinal cord injury (SCI) in the rat. A compression lesion of the spinal cord was evoked by insufflating a Fogarty balloon located in the epidural space at the T8-9 spinal level of adult Wistar male rats (200-250 gr; n=60). In different groups of SCI rats, EA (frequencies: 2, 50 and 100Hz) was applied simultaneously to Huantiao (GB30), Yinmen (BL37), Jizhong (GV6) and Zhiyang (GV9)

acupoints from the third post-injury day until the experimental session. At 1, 2, 3 and 4 post-injury weeks, the BBB scores of the SCI group of rats treated with EA at 50Hz showed a gradual but greater enhancement of locomotor activity than the other groups of rats. Unrestrained gait kinematic analysis of SCI rats treated with EA-50Hz stimulation showed a significant improvement in stride duration, length and speed ($p < 0.05$), whereas a discrete recovery of gait locomotion was observed in the other groups of animals. After four post-injury weeks,

the H-reflex amplitude and H-reflex/M wave amplitude ratio obtained in SCI rats had a noticeable enhancement (217%) compared to sham rats (n=10). Meanwhile, SCI rats treated with EA at 50Hz manifested a decreased facilitation of the H-reflex amplitude and H/M amplitude ratio (154%) and a reduced frequency-dependent amplitude depression of the H-reflex (66%). In addition, 50 Hz-EA treatment induced a recovery of the presynaptic

depression of the Gs-VRP evoked by PBSt conditioning stimulation in the SCI rat ($63.2 \pm 8.1\%$; n=9). In concordance with the latter, it could be suggested that 50 Hz-EA stimulation reduced the hyper-excitability of motoneurons and provokes a partial improvement of the locomotive performance and H reflex responses by a possible recovery of presynaptic mechanisms in the spinal cord of experimentally injured rats.

Acupuncture reduces relapse to cocaine-seeking behavior via activation of GABA neurons in the ventral tegmental area.

<https://www.ncbi.nlm.nih.gov/pubmed/28271626>

Addict Biol. 2017 Mar 7. doi: 10.1111/adb.12499.

By Jin W, Kim MS, Jang EY, Lee JY, Lee JG, Kim HY, Yoon SS, Lee BH, et al.,

Abstract

There is growing public interest in alternative approaches to addiction treatment and scientific interest in elucidating the neurobiological underpinnings of acupuncture. Our previous studies showed that acupuncture at a specific Shenmen (HT7) points reduced dopamine (DA) release in the nucleus accumbens (NAc) induced by drugs of abuse. The present study was carried out to evaluate the effects of HT7 acupuncture on γ -aminobutyric acid (GABA) neuronal activity in the ventral tegmental area (VTA) and the reinstatement of cocaine-seeking

behavior. Using microdialysis and in vivo single-unit electrophysiology, we evaluated the effects of HT7 acupuncture on VTA GABA and NAc DA release and VTA GABA neuronal activity in rats. Using a within-session reinstatement paradigm in rats self-administering cocaine, we evaluated the effects of HT7 stimulation on cocaine-primed reinstatement. Acupuncture at HT7 significantly reduced cocaine suppression of GABA release and GABA neuron firing rates in the VTA. HT7 acupuncture attenuated cocaine-primed reinstatement, which was

blocked by VTA infusions of the selective GABA_B receptor antagonist 2-hydroxysaclofen. HT7 stimulation significantly decreased acute cocaine-induced DA release in the NAc, which was also blocked by 2-hydroxysaclofen.

HT7 acupuncture also attenuated cocaine-induced sensitization of extracellular DA levels in the NAc. Moreover, HT7 acupuncture reduced both locomotor activity and neuronal

activation in the NAc induced by acute cocaine in a needle-penetration depth-dependent fashion. These results suggest that acupuncture may suppress cocaine-induced DA release in the NAc and cocaine-seeking behavior through activation of VTA GABA neurons. Acupuncture may be an effective therapy to reduce cocaine relapse by enhancing GABAergic inhibition in the VTA.

Acupuncture Attenuates Renal Sympathetic Activity and Blood Pressure via Beta-Adrenergic Receptors in Spontaneously Hypertensive Rats.

<https://www.ncbi.nlm.nih.gov/pubmed/28270938>

Neural Plast. 2017;2017:8696402. doi: 10.1155/2017/8696402.

By Yang JW, Ye Y, Wang XR, Li F, Xiao LY, Shi GX, Liu CZ.

Abstract

The sympathetic nervous system, via epinephrine and norepinephrine, regulates β -adrenergic receptor (β -AR) expression, and renal sympathetic activation causes sustained increases in blood pressure by enhanced renin release. In this study, we aim to investigate the effect and underlying mechanism of acupuncture at Taichong (LR3) on renal sympathetic activity in spontaneously hypertensive rats. Unanesthetized rats were subject to daily acupuncture for 2 weeks. Mean blood pressure (MBP) and heart rate variability (HRV) were monitored

at days 0, 7, and 14 by radiotelemetry. After euthanasia on the 14th day, blood and the kidneys were collected and subject to the following analyses. Epinephrine and norepinephrine were detected by ELISA. The expression of β -ARs was studied by western blotting and PCR. The renin content was analyzed by radioimmunoassay. 14-day acupuncture significantly attenuates the increase of MBP. The HRV indices, the standard deviation of all normal NN intervals (SDNN), and the ratio of the low-frequency component to the high-frequency

component (LF/HF) were improved following acupuncture. Renal sympathetic activation induced upregulation of epinephrine, norepinephrine, and renin content were attenuated by acupuncture. In

addition, acupuncture decreased β 1-AR expression and improved β 2-AR expression. These results indicated that acupuncture relieves the increased MBP via the regulation of renal sympathetic activity and β -ARs.

The effect of acupuncture on chemotherapy-associated gastrointestinal symptoms in gastric cancer.

<https://www.ncbi.nlm.nih.gov/pubmed/28270726>

Curr Oncol. 2017 Feb;24(1):e1-e5. doi: 10.3747/co.24.3296.

By Zhou J, Fang L, Wu WY, He F, Zhang XL, Zhou X, Xiong ZJ.

Abstract

BACKGROUND:

Gastrointestinal (gi) symptoms are the most notable side effects of chemotherapeutic drugs; such symptoms are currently treated with drugs. In the present study, we investigated the effect of acupuncture on gi symptoms induced by chemotherapy in patients with advanced gastric cancer.

METHODS:

A cohort of 56 patients was randomly divided into an experimental group and a control group. All patients received combination chemotherapy with oxaliplatin-paclitaxel. Patients in the experimental group received 30 minutes of acupuncture therapy daily for 2 weeks. The frequency and duration of nausea, vomiting, abdominal pain, and diarrhea, the average days and costs of

hospitalization, and quality-of-life scores were compared between the groups.

RESULTS:

Nausea was sustained for 32 ± 5 minutes and 11 ± 3 minutes daily in the control and experimental groups respectively ($p < 0.05$). On average, vomiting occurred 2 ± 1 times daily in the experimental group and 4 ± 1 times daily in the control group ($p < 0.05$). Abdominal pain persisted for 7 ± 2 minutes and 16 ± 5 minutes daily in the experimental and control groups respectively ($p < 0.05$). On average, diarrhea occurred 1 ± 1 times daily in the experimental group and 3 ± 1 times daily in the control group ($p < 0.05$). The average quality-of-life score was higher in the experimental group than in the control group ($p < 0.05$). No

adverse events were observed for the patients receiving acupuncture.

CONCLUSIONS:

Acupuncture, a safe technique, could significantly reduce gi symptoms

induced by chemotherapy and enhance quality of life in patients with advanced gastric cancer.

A Single Case of Tourette's Syndrome Treated with Traditional Chinese Medicine.

<https://www.ncbi.nlm.nih.gov/pubmed/28254105>

J Acupunct Meridian Stud. 2017 Jan;10(1):55-61. doi: 10.1016/j.jams.2016.12.005. Lee MH.

Abstract

The objective of this case study was to investigate the effectiveness of Chinese medicine in treating Tourette's syndrome. Tourette's syndrome is a childhood-onset disorder that is characterized by sudden, involuntary movements or tics. The participant in this study was a 33-year-old male who had been diagnosed with Tourette's syndrome at the age of 9 years. His major complaints included facial tics, shoulder shrugging, and clearing the throat. Using a combination of acupuncture, herbs, Gua-Sha, and lifestyle changes once a week for 35 treatments, all the symptoms were reduced by 70%, as reported by the patient. In this case, the results indicated that Chinese medicine was able to minimize the symptoms of Tourette's syndrome. Further investigation is needed to support this argument. Tourette's syndrome, which

was first described in 1885 by a French physician named Gilles de la Tourette, is characterized by facial tics, involuntary body movements from the head to the extremities, or vocal tics, and it usually has its onset in childhood. It is a neuropsychiatric disorder. The treatment for Tourette's syndrome is based on pharmacological treatment, behavior treatment, and deep brain stimulation. Unfortunately, none of these could completely control the symptoms; furthermore, antipsychiatric drugs might cause additional side effects, such as Parkinson symptoms, tardive dyskinesia, and metabolic disturbances. Finding acupuncture and oriental medicine literature on treatment of Tourette's syndrome was difficult, especially that written in English. Some research papers that have been translated into English

indicated that Chinese herbs and acupuncture could reduce the tics significantly. For example, a study by Dr Pao-Hua Lin reported the significant effects of using acupuncture and

oriental medicine in treating 1000 Tourette's syndrome cases. This case was treated to further investigate the principles of Dr Lin's study.

Auricular Acupuncture Analgesia in Thoracic Trauma: A Case Report.

<https://www.ncbi.nlm.nih.gov/pubmed/28254102>

J Acupunct Meridian Stud. 2017 Jan;10(1):49-52. doi: 10.1016/j.jams.2016.06.003. Papadopoulos GS, Tzimas P, Liarmakopoulou A, Petrou AM.

Abstract

We report a case of thoracic trauma (rib fractures with pneumothorax and pulmonary contusions) with severe chest pain leading to ineffective ventilation and oxygenation. The patient presented to our emergency department. The patient had chronic obstructive pulmonary disease and was completely unable to take deep breaths and clear secretions from his bronchial tree. After obtaining informed consent, we applied auricular acupuncture to ameliorate pain and hopefully improve his functional ability to cough and breathe deeply. Within a few minutes, his pain scores diminished considerably, and his ventilation and oxygenation indices improved to safe limits.

Auricular acupuncture analgesia lasted for several hours. Parallel to pain reduction, hemodynamic disturbances and anxiety significantly resolved. A second treatment nearly a day later resulted in almost complete resolution of pain that lasted at least 5 days and permitted adequate ventilation, restored oxygenation, and some degree of mobilization (although restricted due to a compression fracture of a lumbar vertebra). Nonopioid and opioid analgesics were sparsely used in low doses during the entire hospitalization period. Hemodynamic alterations and anxiety also decreased, and the patient was soon ready to be discharged.