



## March 2007 Newsletter

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## Acupuncture Events for March 2007

**04**

Sydney - The Enteric System: Part 1

When: All - Day, Contact: Emily Lewis on 1300 133 807 or emily@chmrd.com

**04**

Brisbane - Japanese Acup. Strategies for Immunity

When: 9.00am - 5.00pm, Where: The Ministry Centre - 23 Victoria Street, Clayfield. Contact: Peter Delaney on 07 33690045 or 0411537398 or pdelaney@uq.net.au

**10**

Brisbane - 8 extras in women's lives/maternity

When: 9:00am - 5:00pm, Where: 86 Riding Rd, Hawthorne. Contact: Heather Bruce on (07) 3899 2274 or heather@heatherbruce.com.au

**11**

Brisbane - 8 extras in women's lives/maternity

When: 9:00am - 5:00pm, Where: 86 Riding Rd, Hawthorne. Contact: Heather Bruce on (07) 3899 2274 or heather@heatherbruce.com.au

**16**

Melbourne - Toyohari Basic Training - Weekend 2 (16th—19th)

When: All - Day. Contact: Australian Shiatsu College on (03) 9419 5520

**24**

Brisbane - Manaka Japanese Acupuncture Protocols (24th-25th)

When: 9.00am - 5.00pm, Where: The Ministry Centre - 23 Victoria Street, Clayfield Contact: Peter Delaney on 07 33690045 or 0411537398 or pdelaney@uq.net.au

**25**

Brisbane - Enteric System by Daniel Weber

When: 10.00am - 4.00pm, Where: Marriott Hotel, 515 Queen St  
Contact: Emily Lewis on 1300 133 807 or emily@chmrd.com

**Treating winter disorders in summer with Fu Moxa** by Xiaoji Jenny Li

**FU MOXA IS ONE OF THE SEVERAL TREATMENTS** named *Dong Bing Xia Zhi*, which means “treating winter diseases in the summer time”. The treatment covers all types of Yang deficiency and excessive Cold syndromes, as well as disorders caused by Lung and Kidney deficiency e.g. asthma. "Fu", in Chinese, is normally labeled as "Triple Fu" or "Fu Tian". This means the hottest period of the year, which is not fixed in either the Western or lunar calendar. It has 3 periods, each lasting for exactly 10 days.

The early Fu begins from the 3rd "Geng (庚)" day after "Xiazhi (夏至)" (around 22 June every year); the mid Fu follows the 4th Geng day (about 10 days later). The last Fu is calculated from the 1st Geng day after "Liqiu (立秋)" (early August) Therefore, the whole period of Triple Fu refers to the time ranging between the 3rd Geng day after "Xiazhi" and the 2nd Geng day after "Liqiu".

**Materials required**

1) Fuzi (附子) cookie - available from most Chinese herb retailers. Mix the Fuzi powder with flour in a ratio 1:3 with fresh water, and form into cookies about 5cm across and 0.5cm thick, allow to dry naturally (see photo below)



2) Moxa cone. Use a herbal moxa stick (manufactured by Chengdu Bingjiang moxa stick factory - available from most TCM retailers), and cut two sections about 5cm long for each acupoint selected.

**Time of day to administer treatment**

11am-1pm on the first day only of each Fu period.

**Treating winter disorders in summer with Fu Moxa** by Xiaoji Jenny Li

*(Continued from page 3)*

**Treatment protocol**

Place one Fuzi cookie on each acupoint and place one moxa cone on each cookie at a time. Ignite the moxa cone. After the moxa has burnt thoroughly, replace with a second cone and ignite once more. Remove the cookies after about 10 minutes after the second cone has burnt thoroughly - the cookies need to have cooled down sufficiently.

**Discussion**

Triple Fu is the hottest period of the year and 11am to 1pm is the time of Yang energy dominating. Therefore, this particular time is the best opportunity to strengthen the Yang Qi. The properties of Fuzi are pungent and sweet in flavor, hot in nature, having actions of recuperating the depleted Yang for resuscitation, supplementing fire, strengthening Yang and expelling cold to relieve pain. It is regarded as the essential herb for the treatment of Yang exhaustion syndrome, all Yang deficiency type syndromes and all pain syndromes of a cold nature.

The main ingredients of the herbal moxa are: Ai ye(艾叶), Niu wei du huo (牛尾独活), Qiang huo (羌活), Chuan wu (川乌), Cao wu (草乌), Nan ping xi xin (南坪细辛), Shi chang pu (石菖蒲), E bu shi cao (鹅不食草), Bo he (薄荷), Zhu ya zao (猪牙皂), Zhang nao (樟脑), Gansong (甘松), Jiang xiang (降香). Most of the ingredients are fragrant, having a strong ability to penetrate the skin and be absorbed into the deep tissues. The moxa also has the properties of warming up the meridians, resolving cold, dispersing wind, removing dampness, dredging the collaterals and stopping pain.

The points selected are specific to invigorating the Yang Qi of the whole body -

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**Treating winter disorders in summer with Fu Moxa** by Xiaoji Jenny Li

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*Dazhui* (GV 14), *Mingmen* (GV 4) and *Zhiyang* (GV 9). *Dazhui* (GV 14) is the converging point of all Yang meridians and "governs Yang"; while *Mingmen* (GV 4), is considered to be the "Gate of Life" and has similar actions to *Dazhui* e.g. warming the Yang Qi and tonifying the Kidney. *Zhiyang* (GV 9) has very similar actions to *Dazhui* and *Mingmen*.

**Case discussion**

38Y, female

Chief complaint: Aversion to cold for 8 years, worse in the past 12 months.

The patient became susceptible to cold weather when she was pregnant 8 years ago. It was so severe that she could not wear shorts even during summer in temperatures of is over 35C. Worse in wintertime. The patient stated; "It feels like the cold is invading into my bones through my clothes!" Feels dizzy sometimes, tired, chest opperession, shortness of breath, has poor appetite, normal urination and defecation, generally normal sleep.

Normal tongue body, white and thin coating.

Deep and thin pulse, the Chi pulse is deeper than others.

The outcome of Fu moxa treatment for this patient was very good. She is now able to wear anything she likes and the associated symptoms are mostly relieved. Based on the actions and properties of the acupoints and herbs, the treatment of Moxa on Fuzi cookies during the time of Triple Fu is one of the most effective treatments for Yang deficiency and internal cold syndromes.

■ *Xiaoji Jenny Li graduated from Chengdu University in 1994 with a Bachelors Degree in Traditional Chinese Medicine and is a registered acupuncturist practicing in Auckland. For more information on Fu moxa, please contact Jenny at: [lixiaoji73@hotmail.com](mailto:lixiaoji73@hotmail.com)*

## The impact of patient expectations on outcomes of Acupuncture.

**01/02/2007 - The impact of patient expectations on outcomes in four randomized controlled trials of acupuncture in patients with chronic pain.**

**Country:** Germany

**Institute:** Centre for Complementary Medicine Research, Department of Internal Medicine II, Technische Universität München, Kaiserstr. 9, 80801 Munich, Germany.

**Author(s):** Linde K, Witt CM, Streng A, Weidenhammer W, Wagenpfeil S, Brinkhaus B, Willich SN, Melchart D.



### Abstract:

In a pooled analysis of four randomized controlled trials of acupuncture in patients with migraine, tension-type headache, chronic low back pain, and osteoarthritis of the knee we investigated the influence of expectations on clinical outcome.

The 864 patients included in the analysis received either 12 sessions of acupuncture or minimal (i.e. sham) acupuncture (superficial needling of non-acupuncture points) over an 8 week period. Patients were asked at baseline whether they considered acupuncture to be an effective therapy in general and what they personally expected from the treatment.

After three acupuncture sessions patients were asked how confident they were that they would benefit from the treatment strategy they were receiving. Patients were classified as responders if the respective main outcome measure improved by at least fifty percent. Both univariate and multivariate analyses adjusted for potential confounders (such as condition, intervention group, age, sex, duration of complaints, etc.) consistently showed a significant influence of attitudes and expectations on outcome.

After completion of treatment, the odds ratio for response between patients considering acupuncture an effective or highly effective therapy and patients who were more sceptical was 1.67 (95% confidence interval 1.20-2.32). For personal expectations and confidence after the third session, odds ratios were 2.03 (1.26-3.26) and 2.35 (1.68-3.30), respectively. Results from the 6-month follow-up were similar.

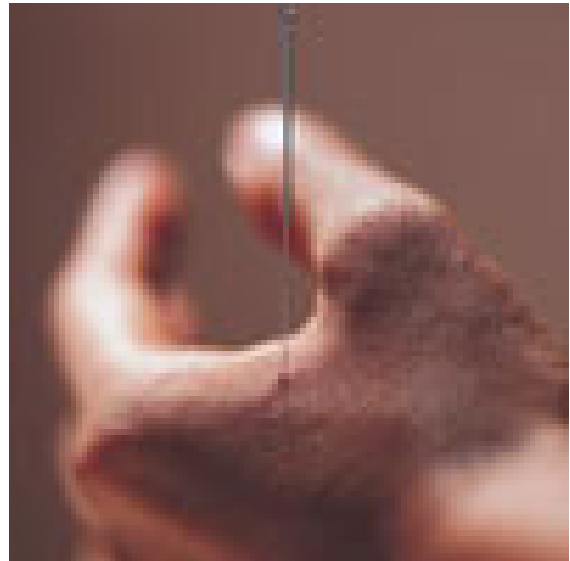
In conclusion, in our trials a significant association was shown between better improvement and higher outcome expectations.

The effect of Acupuncture on LI-4 measured with positron emission tomography.

**02/02/2007 - Acupuncture of LI-4 in Anesthetized healthy humans decreases cerebral blood flow in the putamen measured with positron emission tomography.**

**Country:** Denmark

**Institute:** Department of Neuroanesthesiology, Aarhus University Hospital, Aarhus C, Denmark.  
lise.schlunzen@dadlnet.dk



**Author(s):** Schlunzen L, Vafae MS, Cold GE.

**Abstract:**

To minimize the influence of exogenous factors, 13 volunteers were anesthetized with sevoflurane 1 MAC while exposed to manual acupuncture stimulation of LI-4 (Group 1, n = 7) or a placebo point in the space between the third and fourth metacarpals (Group II, n = 6).

During anesthesia (baseline) and anesthesia + acupuncture, one H<sub>2</sub> (15)O scan was performed, respectively. Group I demonstrated a significant decrease in regional cerebral blood flow in the right medial frontal gyrus (20%) and in the left putamen (17%). In Group II regional cerebral blood flow was decreased in the right medial frontal gyrus (22%); in the putamen no significant changes were observed.

These data suggest that needle penetration of the skin affects the medial frontal gyrus, whereas acupuncture of LI-4 influences the putamen.

**The effects of acupuncture during labour on nulliparous women.**

**02/02/2007 - The effects of acupuncture during labour on nulliparous women: A randomised controlled trial.**

**Country:** Iran

**Institute:** Department of Obstetrics and Gynecology, Vali Asr Research Centre for Reproductive Health, Imam Medical Complex, Tehran, Iran.

**Author(s):** Hantoushzadeh S, Alhousseini N, Lebaschi AH.

**Abstract:**

**Background:** Acupuncture is as an ancient system of diagnosis and treatment. It is regarded as a complementary tool for pain management.

**Aims:** To assess the effects of acupuncture on nulliparous women during labour with respect to pain, labour duration and maternal acceptability.

**Methods:** One hundred and forty-four healthy nulliparous women in active phase were randomised into the study and control group, receiving real and minimal acupuncture, respectively. Visual analogue scale was used to assess pain. Objectives were to evaluate acupuncture effect on pain and labour duration and patients' willingness to receive acupuncture for subsequent pregnancies.

**Results:** Visual analogue scale pain score in the study group was lower after two hours. Active phase duration and the oxytocin units administered were lower in the study group. Study group patients had greater willingness to receive acupuncture again. No adverse effects were detected.

**Conclusions:** Acupuncture could reduce pain experience, active phase duration and oxytocin units. Patients were satisfied and no adverse effects were noted.



## Response to acupuncture stimuli in carpal tunnel syndrome.

**03/02/2007 - Hypothalamus and amygdala response to acupuncture stimuli in carpal tunnel syndrome.**

**Country:** U.S.A

**Institute:** Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, Charlestown, MA, United States; Department of Radiology, Logan College of Chiropractic, Chesterfield, MO, United States.



**Author(s):** Napadow V, Kettner N, Liu J, Li M, Kwong KK, Vangel M, Makris N, Audette J, Hui KK.

### Abstract:

Brain processing of acupuncture stimuli in chronic neuropathic pain patients may underlie its beneficial effects. We used fMRI to evaluate verum and sham acupuncture stimulation at acupoint LI-4 in Carpal Tunnel Syndrome (CTS) patients and healthy controls (HC).

CTS patients were retested after 5 weeks of acupuncture therapy. Thus, we investigated both the short-term brain response to acupuncture stimulation, as well as the influence of longer-term acupuncture therapy effects on this short-term response.

CTS patients responded to verum acupuncture with greater activation in the hypothalamus and deactivation in the amygdala as compared to HC, controlling for the non-specific effects of sham acupuncture. A similar difference was found between CTS patients at baseline and after acupuncture therapy. For baseline CTS patients responding to verum acupuncture, functional connectivity was found between the hypothalamus and amygdala - the less deactivation in the amygdala, the greater the activation in the hypothalamus, and vice versa. Furthermore, hypothalamic response correlated positively with the degree of maladaptive cortical plasticity in CTS patients (inter-digit separation distance).

This is the first evidence suggesting that chronic pain patients respond to acupuncture differently than HC, through a coordinated limbic network including the hypothalamus and amygdala.

**Electro acupuncture on spasticity of the wrist joint stroke patients.**

**04/02/2007 - The effect of electro-acupuncture on spasticity of the wrist joint in chronic stroke survivors.**

**Country:** U.S.A

**Institute:** Department of Physical Therapy and Rehabilitation Sciences, University of Kansas Medical Center, Kansas City, KS.

**Author(s):** Mukherjee M, McPeak LK, Redford JB, Sun C, Liu W.

**Abstract:**

The effect of electro-acupuncture on spasticity of the wrist joint in chronic stroke survivors.

**OBJECTIVE:** To quantitatively assess the change in spasticity of the impaired wrist joint in chronic stroke patients after electro-acupuncture treatment.

**DESIGN:** Crossover design.

**SETTING:** University medical center research laboratory.

**PARTICIPANTS:** Seven chronic stroke subjects (age, 63.14+/-7.01y).

**INTERVENTION:** Participants received two 6-week treatment regimens: combined electro-acupuncture and strengthening twice a week, and strengthening twice a week only. Muscle strength and spasticity of the wrist joint were quantified by using the Biodex multijoint System 3 Pro. Electro-acupuncture was given through a commercial electro-acupuncture device.

**MAIN OUTCOME MEASURES:** Velocity sensitivity of averaged speed-dependent reflex torque (VASRT); segmented averaged speed-dependent reflex torque (SASRT); Modified Ashworth Scale (MAS) scores; and integrated electromyographic activity of the affected wrist flexors during passive stretch of the affected wrist joint.

**RESULTS:** VASRT was reduced significantly in the combined treatment group ( $P=.02$ ) after the 6-week period, but not in the strengthening-only group ( $P=.23$ ); however, no significant immediate effect of electro-acupuncture was observed ( $P>.05$ ). MAS scores also showed a significant reduction ( $P<.01$ ). SASRT did not differ significantly across different positions of the joint or across velocity; however, significant differences were present between the 2 treatment groups ( $P<.05$ ) for each position and at all the velocities except at 20 degrees /s. Integrated electromyographic activity showed a trend for reduction after the combined treatment.

**CONCLUSIONS:** A combination of electro-acupuncture and muscle strengthening exercise for 6 weeks significantly reduced spasticity. The effect of spasticity reduction was consistent across different joint positions and different velocities of passive stretch.



**China seeks int'l cooperation on traditional Chinese medicine.****07/02/2007 - China seeks int'l cooperation on traditional Chinese medicine.****News release:**

China is working with international scientists to research a wide range of new treatments using traditional Chinese medicine (TCM), an official with China's Ministry of Science and Technology said in Beijing on Tuesday.



China together with international researchers will test TCM in treating AIDS, cancer and psychosis and cardiovascular diseases, said vice minister Shang Yong.

China also will focus on developing modern TCM products which meet the demand of the international market and establish TCM collaborative research centers and laboratories, he added.

"Our goal is to set up 15 to 30 such research centers and laboratories and finish 100 collaborative research projects by 2020," he added.

China also plans to carry out academic exchanges with 50 overseas medical institutes and colleges, he said.

The research was prompted by the International Traditional Chinese Medicine Program for Cooperation in Science and Technology which was launched in Beijing last July.

China has signed inter-governmental protocols including TCM cooperation with 70 countries and regions. TCM has been accepted and protected by laws in Australia and South Africa, and TCM products have been exported to 135 countries and regions, according to the ministry.

**Acupuncture in the treatment of temporomandibular joint myofascial pain.**

**10/02/2007 - The efficacy of acupuncture in the treatment of temporomandibular joint myofascial pain: A randomised controlled trial.**

**Country:** U.K

**Institute:** School of Dentistry, The University of Manchester, Higher Cambridge Street, Manchester M15 6FH, United Kingdom.

**Author(s):** Smith P, Moss crop D, Davies S, Sloan P, Al-Ani Z.

**Abstract:**

**OBJECTIVES:** To compare the effect of real acupuncture and sham acupuncture in the treatment of temporomandibular joint myofascial pain, in order to establish the true efficacy of acupuncture.

**METHODS:** A double blind randomised controlled trial conducted in the TMD Clinic, at the School of Dentistry, The University of Manchester. Twenty-seven patients were assigned to one of two treatment groups. Group 1 received real acupuncture treatment whilst Group 2 received a sham acupuncture intervention. Both the assessor and the patient were blinded regarding the group allocation. Baseline assessment of the outcome variables was made prior to the first treatment session, and was repeated following the last treatment.

**RESULTS:** The results demonstrated that real acupuncture had a greater influence on clinical outcome measure of TMJ MP than those of sham acupuncture, and the majority of these reached a level of statistical significance.

**CONCLUSION:** Acupuncture had a positive influence on the signs and symptoms of TMJ MP. In addition, this study provides evidence that the Park Sham Device was a credible acupuncture control method for trials involving facial acupoints.



**Acupuncture for lower urinary tract symptoms related to prostatitis/pelvic pain.****11/02/2007 - Acupuncture for lower urinary tract symptoms related to chronic prostatitis/chronic pelvic pain.**

**Author(s):** Capodice JL, Jin Z, Bemis DL, Samadi D, Stone BA, Kaplan S, Katz AE.

**Abstract:**

**BACKGROUND:** The etiology and treatment of chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) remain poorly understood. Pain, lower urinary tract voiding symptoms and negative impact on quality of life (QOL) are the most common complaints. Acupuncture, which has been widely used to treat painful and chronic conditions, may be a potential treatment to alleviate the constellation of symptoms experienced by men with CP / CPPS. The purpose of our study was to assess the impact of standardized full body and auricular acupuncture in men refractory to conventional therapies and collect pilot data to warrant further randomized trials.



**METHODS:** Ten men diagnosed with category IIIA or IIIB CP/CPPS >6 months, refractory to at least 1 conventional therapy (antibiotics, anti-inflammatory agents, 5-alpha reductase inhibitors, alpha-1 blockers) and scoring >4 on the pain subset of the NIH-CPSI were prospectively analyzed in an Institutional Review Board (IRB) approved, single-center clinical trial (Columbia University Medical Center IRB#AAAA-7460). Standardized full body and auricular acupuncture treatment was given twice weekly for 6 weeks. The primary endpoints were total score of the NIH-CPSI and assessment of serious adverse events. The secondary endpoints were individual scores of the NIH-CPSI and QOL questionnaire scores of the short-form 36 (SF-36).

**RESULTS:** The median age of the subjects was 36 years (range 29-63). Decreases in total NIH-CPSI scores (mean +/- SD) after 3 and 6 weeks from baseline (25.1 +/- 6.6) were 17.6 +/- 5.7 ( $P < 0.006$ ) and 8.8 +/- 6.2 ( $P < 0.006$ ) respectively and remained significant after an additional 6 weeks of follow-up ( $P < 0.006$ ). Symptom and QOL / NIH-CPSI sub-scores were also significant ( $P < 0.002$  and  $P < 0.002$  respectively). Significance in 6 of 8 categories of the SF-36 including bodily pain ( $P < 0.002$ ) was achieved. One regression in the SF-36 vitality category was observed after follow-up. There were no adverse events.

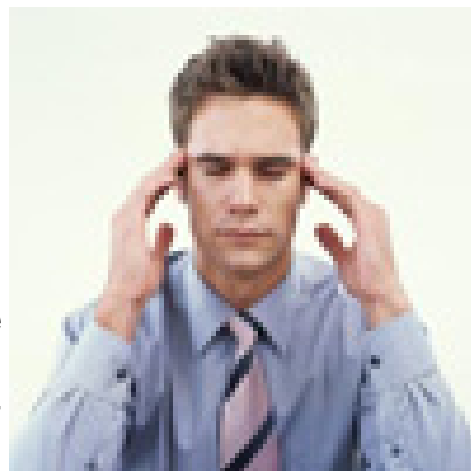
**CONCLUSION:** The preliminary findings, although limited, suggest the potential therapeutic role of acupuncture in the treatment of CP / CPPS. Data from this and previous studies warrant randomized trials of acupuncture for CP/CPPS and particular attention towards acupuncture point selection, treatment intervention, and durability of acupuncture.

**Randomized trial vs. observational study of acupuncture for migraine.**

**14/02/2007 - Randomized trial vs. observational study of acupuncture for migraine found that patient characteristics differed but outcomes were similar.**

**Country:** Germany

**Institute:** Centre for Complementary Medicine Research, Department of Internal Medicine II, Technische Universitat Munchen, Munich, Germany.



**Author(s):** Linde K, Streng A, Hoppe A, Weidenhammer W, Wagenpfeil S, Melchart D.

**Journal:** J Clin Epidemiol. 2007 Mar;60(3):280-7. Epub 2006 Oct 2.

**Abstract:**

**OBJECTIVE:** To compare patient characteristics and outcomes between a randomized controlled trial (RCT) and an observational study (OS) of acupuncture treatment in patients with migraine.

**STUDY DESIGN AND SETTING:** Within the framework of a research program for acupuncture for chronic pain, both an RCT and an OS of routine care were performed in patients with migraine. One hundred forty-five patients received acupuncture in the RCT and 732 in the OS. All patients completed a pain questionnaire, including instruments evaluating disability, quality of life, and depression, at baseline and at 6-month follow-up.

**RESULTS:** At baseline, patients participating in the RCT had a significantly longer history of complaints and more headache days but better quality of life and fewer depressive symptoms than patients participating in the OS. In unadjusted analyses, improvements after 6 months were more pronounced in the OS than in the RCT. After adjustment for potential confounders, the differences decreased but were still significant for several outcomes.

**CONCLUSION:** Participants of the RCT were probably not representative of migraine patients undergoing acupuncture treatment in routine care under current regulations in Germany. However, changes after treatment were similar in the RCT and the OS of routine care.

## Fibromyalgia treatment review.

19/02/2007 - Fibromyalgia treatment review.

**Country:** U.S.A

**Institute:** Division of Rheumatology and the Center for the Study of Nutrition Medicine, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, Massachusetts, USA.

**Author(s):** Rooks DS.

**Journal:** Curr Opin Rheumatol. 2007 Mar;19(2):111-7



### Abstract:

**PURPOSE OF REVIEW:** Fibromyalgia is a common chronic pain disorder characterized by complex symptomatology and few consistently effective treatments. The purpose of this review is to highlight the recent literature from April 2005 through September 2006 involving treatment options.

**RECENT FINDINGS:** Prior evidence suggests that medication and self-management approaches to care can improve symptoms, function and well-being in this patient population. Recent studies examining the efficacy of two serotonin and norepinephrine-reuptake inhibitors - duloxetine and milnacipran - and the anticonvulsant pregabalin are encouraging. Studies evaluating different forms of exercise continue to support the belief that increased physical activity is an essential component of any treatment plan for the patient with fibromyalgia. Three studies added to the understanding of treatment adherence. Finally, three studies evaluating the efficacy of acupuncture in the treatment of fibromyalgia showed conflicting results, but added to the knowledge needed for clinicians to have substantive conversations with patients.

**SUMMARY:** Recent studies support the recommendation of a multimodal approach to treatment involving individualized, evidence-based pharmacotherapy and self-management. Treatment goals should include the improvement of symptoms, primarily pain and sleep, and the promotion of positive health behaviors with the aim of improving physical function and emotional well-being.

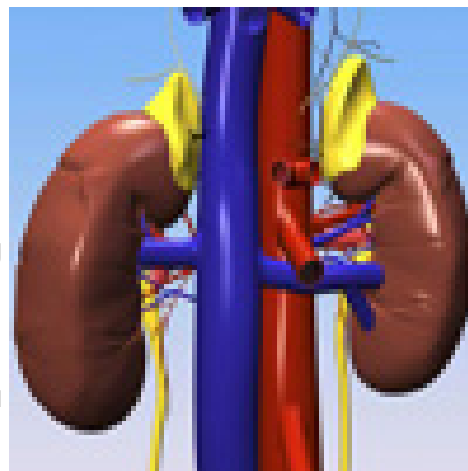
**Acupuncture stimulation of ST36 (Zusanli) attenuates acute renal injury in rats.**

**23/02/2007 - Acupuncture stimulation of ST36 (Zusanli) attenuates acute renal but not hepatic injury in lipopolysaccharide stimulated rats.**

**Country:** China

**Institute:** Acupuncture and Moxibustion Institute, Nanjing University of Traditional Chinese Medicine, Nanjing, China.

**Author(s):** Huang CL, Tsai PS, Wang TY, Yan LP, Xu HZ, Huang CJ.

**Abstract:**

**BACKGROUND:** We sought to determine the effects of ST36 acupuncture on sepsis-induced kidney and liver injuries.

**METHODS:** A total of 120 rats were randomized into 10 groups: 1) lipopolysaccharide (LPS), 2) normal saline (N/S), 3) LPS + ST36, 4) ST36, 5) LPS + P-ST36, 6) P-ST36, 7) LPS + Sham, 8) Sham, 9) LPS + P-Sham, and 10) P-Sham groups. Rats in the LPS + ST36, ST36, LPS + Sham, and Sham groups received ST36 (designated as "ST36") or a nonacupoint (designated as "Sham") acupuncture for 30 min followed by LPS or N/S injection. Rats in the LPS + P-ST36, P-ST36, LPS + P-Sham, and P-Sham groups received LPS or N/S injection for 3 h followed by a 30 min of ST36 or a "nonacupoint" acupuncture. Rats were killed at 6 h after LPS injection.

**RESULTS:** LPS caused prominent kidney and liver injuries. The renal and hepatic nitric oxide (NO) concentrations and inducible NO synthase (iNOS) expression were also increased by LPS. ST36 acupuncture pretreatment significantly attenuated the LPS-induced kidney injury and the increases in renal NO concentration and iNOS expression. However, ST36 acupuncture pretreatment did not affect the LPS-induced liver injury and increases in hepatic NO concentration or iNOS expression. Furthermore, ST36 acupuncture performed after LPS did not affect the LPS-induced organ injuries or increases in NO concentration and iNOS expression.

**CONCLUSIONS:** ST36 acupuncture pretreatment significantly attenuated sepsis-induced kidney, but not liver, injury in rats, whereas ST36 acupuncture performed after sepsis induction had no protective effects against sepsis-induced organ injuries.