

AACMAC Brisbane 2012: Selected Conference Abstracts

EDITOR'S NOTE: The 2012 Australasian Acupuncture and Chinese Medicine Association Annual Conference (AACMAC) was held in Brisbane on 25–27 May 2012. Seventy-seven abstracts were submitted, and 44 were for peer-review. An assessment panel, consisting of three Editorial Board members and one International Advisory Committee member, was established to assess the quality of each abstract, and select those meeting the AJACM standards for publication in this journal. To be selected, the abstract must present original data and/or thoughts; and must be structured with some form of aim, method, results and conclusion. Fourteen were finally included.

Current practice amongst acupuncturists treating threatened miscarriage in Australia and New Zealand

By Debra Betts

Background: Threatened miscarriage is a common complication of early pregnancy that may result in miscarriage and premature labour. Although only a 'wait and see approach' is advised medically, treatment recommendations exist within acupuncture texts. However these are conflicting, potentially creating treatment uncertainty and limiting clinical practice. As women increasingly seek acupuncture for their fertility, opportunities exist to offer interested women treatment. To explore this potential, acupuncturists' views were sought to add to the limited information currently available. Methods: A mixed methods study involving a self completed questionnaire and semi structured interviews; an online survey link was sent through Australia and New Zealand acupuncture associations requesting practitioner's views. Descriptive statistics were used to analyse data. Thirteen participants were purposefully selected for interviews to further explore perceptions of clinical practice. Interviews were conducted and recorded via Skype, transcribed verbatim and analysed through thematic analysis. Results: Of the 370 respondents, 214 (58%) had treated women for threatened miscarriage within the previous year. Detailed responses about current practice were obtained from 164 practitioners. Safety concerns focused on inexperienced practitioners causing miscarriage. While the majority avoided points traditionally used to induce labour, 13% would use LI4, 22% SP6 and 38% BL31. Clinical practice reflected diverse treatment strategies within acupuncture texts. Interviews illustrated how practitioners integrated this diversity. Conclusion: Practitioners demonstrated an interest in treating threatened miscarriage and responded positively to clinical practice questions. Feedback gathered contributes to inform clinical practice for this common complication of pregnancy.

The Journal and AACMA: the past, present and future of the Australian Journal of Acupuncture and Chinese Medicine

By Zhen Zheng

Background: The Australian Journal of Acupuncture and Chinese Medicine is the official academic journal of the Australian Association of Acupuncture and Chinese Medicine. It was first published in 2006 aiming to acknowledge diversity of Chinese medicine and promote rigour in research of this profession. Aim: This presentation reviews the six-year publication of the journal and discusses its future direction. Present: From the inception of the journal, the Editorial Board has followed international standards for manuscripts submitted to medical journals to ensure the scientific rigour of papers published. As our requirements become better known to authors, the acceptance rate has increased to more than 50%. To encourage diversity, we have published clinical trials and systematic reviews, as well as case reports and commentaries discussing essential concepts of Chinese medicine, such as *shen*. Among accepted peer-reviewed manuscripts, 60% were original research. About 20% of authors who submitted manuscripts were located overseas, including Asia, Europe, Northern America and Pacific regions. The content of the publication has evolved over the years. In response to the feedback from readers, we have included interviews and research snapshots. Future: Due to consistency in publishing high quality papers, the journal is now included in Scopus, 'the world's largest abstract and citation database of peer-reviewed literature and quality web sources'. Future development strategies are to continue current diversity in the types of publications, to expand to online publication, and to improve impact in the field of Chinese medicine.

Patients and acupuncturists view of acupuncture: implications for designs of clinical trials

By Zhen Zheng

Background: Randomised controlled trials (RCTs) are the gold standard for efficacy studies of any intervention, including acupuncture. How RCTs are designed is largely influenced by the active components of a therapy. For instance, a drug trial can only be conducted after the active compound is identified and tested. Similarly the design of acupuncture RCTs should be based on the active component of a therapy. So far the understanding of such elements is based on belief rather than evidence. There is no study specifically examining these aspects of an acupuncture treatment. Aim: This paper aims to examine the elements of acupuncture from patients' and acupuncturists' perspectives. Methods: Data from qualitative studies were used to examine the experience and perceived effects of acupuncture by patients who had received Western acupuncture compared with those reported by patients receiving traditional acupuncture, or those taking part in sham-acupuncture RCTs. Views of clinical trial acupuncturists were also extracted. Results: Patients who had traditional acupuncture had perceived far richer effects than those receiving Western acupuncture or taking part in sham-acupuncture controlled trials. The experience of trial acupuncturists who took part in sham-acupuncture RCTs differed greatly from that experienced by the acupuncturists in pragmatic trials. Conclusion: The differences highlight the complexity of traditional acupuncture in practice and the simplicity of acupuncture in clinical trials. Advanced trial designs are needed to properly test the effects of and interactions among various components of an acupuncture treatment.

An evidence-based Tai Chi and Qigong program for diabetes and obesity control

By Xin Liu; Wendy Brown; Yvette Miller; Nicola Burton

Objective: The objective of this study was to evaluate the effects of an innovative Tai Chi and Qigong based program on indicators of diabetes and obesity control. Method: A randomised controlled trial involving participants with pre-diabetes or diabetes recruited from the local community. Forty-one participants were randomly allocated to an intervention ($n = 20$) or usual care control group ($n = 21$). Intervention group participants attended a 12-week Tai Chi and Qigong training program. Indicators of diabetes and obesity control were assessed immediately prior to and after the intervention. Results: Linear regression analyses showed there were significant improvements in BMI, waist circumference and HbA1c in the intervention group, compared to the control group (BMI: between-group mean difference = -1.17, 95% CI = -1.66; -0.67, $p < 0.001$; waist circumference: between-group mean difference = -4.78 cm, 95% CI = -6.36; -3.20, $p < 0.001$; HbA1c: between-group mean difference = -0.23%,

95% CI = -0.45; -0.01, $p < 0.05$). There were also significant improvement in fasting blood glucose (mean difference = -0.47 mmol/L, 95% CI = -0.79; -0.14, $p < 0.01$) and trend towards significant improvement in triglycerides (mean difference = -0.25 mmol/L, 95% CI = -0.55; 0.04, $p = 0.09$) in the intervention group, but not seen in the control group. Conclusion: The findings provide clinical and scientific evidence for the effects of an innovative Tai Chi and Qigong based program on diabetes and obesity control. The innovative evidence-based Tai Chi and Qigong intervention program will be introduced and demonstrated during the presentation.

Future directions for acupuncture research

By John McDonald

Acupuncture research is at a crossroads. After initially attempting to use the double-blinded placebo controlled model for acupuncture research, eventually the single-blinded placebo controlled model has been widely adopted. However since currently used forms of placebo controls for acupuncture have been problematic, it is possible that a truly inert form of placebo acupuncture may not exist. When placebo protocols are not inert, this introduces negative bias into studies, defeating the original goal of reducing bias. This dilemma is shared by other therapies which involve complex interventions (like psychotherapy), and where skill levels of the practitioner strongly influence clinical outcomes (like surgery). This raises questions about the appropriateness of the current model of Evidence-Based Medicine levels of evidence to assess clinical efficacy for all interventions. Historically the most successful use of the double-blinded placebo controlled trial appears to have been in pharmaceutical trials which have not used complex interventions and in which the skill of the dispenser has not been a significant factor. The Society for Acupuncture Research has proposed a combination of open pragmatic trials along with mechanism studies which they call a 'top-down' and 'bottom-up' approach. In addition, open pragmatic studies which compare acupuncture with other therapies could provide useful evidence. Improvements to the systematic review process are proposed, including filters to exclude studies from systematic reviews if the acupuncture treatment or the skill levels of the practitioners who delivered it are deemed to be inadequate. This would require the establishment of standards to assess the quality of acupuncture treatment and practitioner background.

Electroacupuncture vs sham electroacupuncture vs standard care for acute and delayed Chemotherapy Induced Nausea and Vomiting: a pilot study

By Chris McKeon; Janet Hardy; Caroline Smith; Ester Chang

Introduction: Chemotherapy Induced Nausea and Vomiting (CINV) is better controlled than in the past, though even with

the latest antiemetics 30% of patients still experience CINV which impacts greatly on their quality of life. A Cochrane Systematic Review in 2006 identified the need for further study with acupuncture for CINV particularly Electroacupuncture. Methods: Patients attending the Mater Adults Day Oncology Unit, Brisbane for first cycle of chemotherapy were randomised to one of three arms; Electroacupuncture, sham Electroacupuncture or standard care. Treatment arms received acupuncture on the first day of chemotherapy, 10 mins prior and for total 30 minutes, returning in 2 days for another treatment. Acupuncture points used were ST36, PC6, LR3 and LI4 bilaterally. Patients completed a daily diary rating nausea and vomiting for 7 days and complete the Functional Living Index Emesis (FLIE) on Day 1, 4 and 7, which is a validated nausea- and vomiting-specific patient-reported outcome instrument that rates nausea and number of vomits and the impact of CINV on QOL. All patients receive standard antiemetics. Results: 60 patients were recruited from April 2009 to May 2011. Initial analysis show that the actual incidence of CINV is low in first cycle chemotherapy and the number recruited was not large enough to show significant benefit. FLIE change Day 1 and 7 (Median + (interquartile range)), standard care -1.02 (19.4), sham acupuncture -1.05 (21.6) and true acupuncture -3.36 (20.8). Nausea score day 1 and 4 standard care 0.00 (19.0), sham acupuncture 0.50 (9.0) and true acupuncture 0.00 (3.75); Day 1 and 2 standard care 0.00 (24.0), sham acupuncture 0.00 (23.0) and true acupuncture 0.00 (2.0). Changes in the FLIE and nausea score was not statistically significant. Discussion: This pilot study has shown the trial is possible to conduct and will identify the sample size needed to conduct a fully powered trial to examine if Electroacupuncture has a greater benefit than standard treatment. The authors are presently applying to NHMRC for the full trial.

Treating female infertility with Chinese herbal medicine: a systematic review

By Karin Ried

Objectives: To assess the effect of traditional Chinese herbal medicine (CHM) in the treatment of female infertility. Methods: We undertook a systematic review of treatment principles and herbal formulas used in randomised controlled trials and cohort studies investigating the effect of CHM on infertility. We included studies identified in previous meta-analyses on the effect of CHM versus Western medicine (WM) on pregnancy rates by our team (Ried & Stuart 2011) and others (See et al 2011). Results: 22 RCTs and six cohort studies involving more than 2000 women with infertility were included in the systematic review. Meta-analyses suggested CHM to be more effective in the treatment of female infertility achieving on average a 50-60% pregnancy rate over four months compared with 30% using standard WM drug treatment. Treatment principles of herbal formulas are based on underlying TCM

pattern diagnosis. Individual herbs within a formula are chosen by their therapeutic actions. While herbal combinations may differ between formulas, therapeutic actions of the formulas for a specific TCM pattern are comparable. Commentary: Our meta-analyses suggest CHM to be more effective in the treatment of female infertility than Western Medicine. Our review provides a summary of effective treatment strategies for infertility with Chinese herbal formulas.

Functional Brain Imaging of acupuncture: an update

By Mark Strudwick

There remains a high degree of scepticism about acupuncture since its theoretical basis has no clear reference in Western medical and scientific terms, making any associations between neurophysiology and specific acupuncture concepts difficult to determine. Using neuroimaging and engineering approaches to understand its physiological basis may engender greater acceptance of and improvement in the clinical application of acupuncture. The aim of this paper is to present an overview of the published results which offer a new opportunity to test an ancient paradigm and introduce a provocative new paradigm for Western medicine. Using search terms humans, clinical trial, meta-analysis, randomised controlled trial, and review in the PubMed database returns 72 studies since the first report of CNS response to acupuncture was demonstrated with fMRI in 1998. Of these, 43 are in English. The results of these studies can be divided into three groups: (1) Those demonstrating a correlation between acupoint stimulation and cortical response; (2) Those demonstrating a different response elicited from different points; and (3) Analgesic responses implying activation of the pain network. The results of the studies published in English, when summarised, clearly demonstrate vague and sometimes contradictory outcomes. These discrepancies in findings may likely be the result of: (1) Significant differences in paradigms used; (2) Significant differences in thresholds used for data analysis; or (3) Failure to account for carryover response from initial needle insertion.

Chinese medicine evidence based diagnosis and treatment on peri-menopausal syndromes

By Hong Xu

Hormonal fluctuations are known to affect the quality of a female's life at different stages during their lifespan. In middle-aged women, hormonal fluctuations are especially known to impact on their mental and physical health. In 36 peri-menopausal participants, the Chinese medicine assessment, urinary 2-hydroxyestrone (2-OHE) and 16alpha-hydroxyestrone (16alpha-OHE) tests, the pulsed electromagnetic field (PEMF) and thermography tests were conducted, which indicated that Chinese medicine patterns of disharmony, the hormonal changes, thermography changes

and the magnetic field changes are related. The acupuncture meridian stagnation tested by the PEMF test shows 25.96% in Liver, 19.82% in Kidney, 32.10% in Spleen, 4.46% in Stomach, 7.18% in Gall Bladder and 10.49% in Bladder meridian. Liver Qi stagnation and Liver Kidney Yin deficiency patterns are predominantly presented in this trial. Chinese food therapy and herbs could provide effective treatment on regulating reproductive hormones, e.g. Chinese wolfberry, mulberry, Chinese kiwi fruit, walnut, chestnut, lotus seed, black sesame seeds; *Tian Wang Bu Xin Dan*, *Zhi Bai Di Huang Wan*, *Qi Ju Di Huang Wan*. Regulating Liver Qi, nourishing Liver and Kidney Yin may be considered as the treatment principle in peri-menopausal syndromes, harmonising Spleen could be used as the first treatment step. Some food and herbs may aggravate menopausal symptoms which should be avoided.

Acupuncture service in a hospital: a year on

By Chris McKeon

This presentation is a continuation of what was presented at the previous AACMAC about the acupuncture service in the Mater Adults Hospital Brisbane. The service would have been operating for 18 months at the time of this presentation. Data collected for the last six months has included changes to the survey tool identified after the first six month review. This will include uptake and usage of the service and the data obtained from research of the evaluation of the service. The evaluation of the service consists of a survey completed by the patients after one month of treatment, covering symptom/s treated, benefits, adverse events, should the service continue, use of other complementary medicine and qualitative data. The changes were to data collected on adverse events, medications and treatments used for the symptoms and changes in usage after acupuncture and the inclusion of MYCaW (Measure Your Concerns and Wellbeing) a tool designed for evaluating complementary therapies in cancer support care. Results: 64 patients (569 treatments) recruited, of which 46 completed all parts of the evaluation, 13% male, 67% female. Age 18–40 = 11%, 41–50 = 24%, 51–60 = 20%, 61–70 = 28%, >70 = 17%. Over 93% patients thought the service was a worthwhile addition and would like it to continue. 70% got some or slight improvement of their symptoms. Symptoms treated include pain, fatigue, nausea, peripheral neuropathy, anxiety, stress, mood problems, insomnia, hot flushes and anorexia.

Investigating the reliability of Contemporary Chinese Pulse Diagnosis™ (CCPD)

By Karen Bilton; Narelle Smith; Chris Zaslowski; Leon Hammer

Few studies have evaluated the clinical reliability of pulse diagnosis despite its significance to Chinese medicine diagnostics. This study's objective was to determine intra-

rater and inter-rater reliability of practitioners using an operationally defined method, CCPD, to evaluate the radial pulse of subjects. Fifteen volunteer subjects and six testers skilled in CCPD were recruited. The design utilised a real-life practical test–retest with data collected 28 days apart according to CCPD procedures. For each subject test and retest, the same four testers evaluated 34 pulse categories defined by the CCPD system. Intra-rater reliability was measured by comparing individual tester results on day one with day two; inter-rater reliability was determined by comparing all testers across both days. Pulse rates were analysed using ANOVA; all other data employed Cohen's kappa coefficient. Pulse quality reliability cross-referenced percentage agreement with the apposite kappa results. Rate variables showed no significant difference between testers. Excellent to good agreement ($K \geq 0.60$) of 67% intra-rater and 44.1% inter-rater calculations confirmed previous findings that operationally defined pulse systems can generate acceptable reliability. Poor agreement ($K \leq 0.40$) of 14.3% intra-rater and 30.5% inter-rater calculations correlated to three pulse positions and subjects. The lower comparable reliability of five qualities were directly related to location, volume and sensation complexity. Across all data, bilateral palpation methods proved more reliable than single finger techniques. Variance of reliability for subjects corresponded to anomalous vasculature while variance according to positions and qualities suggested the CCPD terminology, descriptions or definitions for accessing these need modification. If following review variance continues, then their clinical usefulness needs to be re-evaluated entirely.

To investigate the effect of (i) needling specificity, (ii) needle manipulation, and (iii) needle retention time on deqi

By Bertrand Loyeung; Deirdre Cobbin; Chris Zaslowski

Introduction: Needle sensation or *de qi* is thought to be essential for a beneficial treatment outcome, particularly when treating pain. While many authors have attempted to qualitatively define *de qi*, no one has investigated the effect of the above needling parameters on its strength. Methods: In this double-blind (assessor and subjects) study, we recorded the needling sensations each subject experienced on a 100 mm long VAS at three minute intervals during each 21 minute needle insertion intervention. Twenty four subjects completed the study and each subject completed eight intervention sessions with at least one week wash out period between each. The eight interventions involved manual acupuncture to either LI4 or a designated non-acupoint (NAP) on the back of the hand and the eight conditions were: LI4m+21, LI4m+1, LI4m-21, LI4m-1, NAPm+21, NAPm+1, NAPm-21, NAPm-1, where m+ = manual manipulation of the needle every 3 minutes, m- = no manipulation, 1 = 1 minute needle retention time and 21 = 21 minutes needle retention time. Results: At $t = 1$, there was no statistical significance difference in the

mean needle sensation scores between the eight interventions ($p > 0.05$, ANOVA). At $t = 4, t = 7, t = 10, t = 13, t = 16, t = 19$ and $t = 22$, the mean sensation scores for both LI4m+21 and NAPm+21 interventions were statistically significantly higher compare to the other interventions ($p < 0.05$, ANOVA). However, the mean needle sensation scores between LI4m+21 and NAPm+21 interventions was not statistically significantly different ($p > 0.05$, ANOVA). Discussion: Irrespective of whether LI4 or NAP was needed, needle manipulation every three minutes with a retention time of 21 minutes will give significantly higher needle sensation scores.

The effective initial stress screening and monitoring of successful acupuncture intervention using the new European Cardio Stress Imaging Technology

By Jerzy Dyczynski

The study takes a new holistic approach to initial stress screening and evaluation of its reduction after acupuncture intervention. The complexity of the biochemical, biophysical, neurological and electromagnetic communication in stress can be reliable measured using the Heart Rate Variability (HRV), reflecting the function of the Intelligent Heart. The HRV is an ECG evidence-based tool to assess heart's autonomic modulation, breathing and hormone activities. It is available as a portable device Vicardio with clinical software solution. Vicardio creates a dynamic window into stress and posttranslational stress scenario. Acupuncture is empirically effective in stress improving the heart/brain synchronisation, stressed cell's signalling, breathing/oxygenation, hormone and autonomic nervous balance. Materials/methods: The study included consecutive 201 patients, 78 males and 123 females from 13 to 93 years; average age 52. Excluded were patients with heart rhythm disturbances such as: a trial fibrillation, premature ventricular beats and the patients being on the B-Blocker medication. Vicardio displays the unique combination of the specific multi-channel ECG and HRV analysis delivering a colour coded mapping cardio portrait in two minutes. Two records were performed by all patients in sitting position with natural breathing activity as a baseline and in about 50 minutes later after acupuncture intervention. The Cardio Stress Index (CSI) ranging from 0 to 100% was calculated as a computerised algorithm including: analysis of ECG-Intervals, Pulse Rate, Fourier Transformation, heart's cohesion and HRV as a baseline and after acupuncture. The standardised big acupuncture prescription has been used by all patients and has addressed the following four levels: Intelligent Heart – HT7 *Shenmen*, LU7 *Lieque*; Heart/Brain Interactions – Ex-HN5 *Taiyang*, Ex-HN1 *Si Shen Cong*, GV26 *Shuigou*; Molecular Biology – GV20 *Baihui*, ST 36 *Zusanli*, LI4 *Hegu*, LI20 *Yingxiang*, SP6 *Sanyinjiao*, BL2 *Cuanzhu*; Genetics

– LI11 *Quchi*, KI3 *Taixi*, GB34 *Yuanglingquan*. No side or adverse effects of acupuncture intervention have been observed by the examined group of patients. Clinical outcomes: The majority of the examined patients showed during the initial baseline record an increased CSI, 43.5% in average, which was significantly reduced to 21.6% in average after intervention. In certain patients the acupuncture intervention may change activity of the COMT gene (Catechol-O-Methyl Transferase), a gene for stress cascade regulation. Conclusions: The study brings new evidence that stress levels can be reliable measured initially and monitored after acupuncture intervention using the new Cardio Stress Imaging Technology. Acupuncture is an effective procedure to reduce stress levels.

Prior to Conception: the role of an acupuncture protocol to enhance women's reproductive functioning

By Suzanne Cochrane; Caroline Smith; Alphia Possamai-Inesedy; Alan Bensoussan

Background: Fertility has become a major presenting condition in TCM clinics. This study sought to explore the potential contribution of an acupuncture protocol in enhancing female fertility. This paper presents the results of a clinical trial to explore the use of acupuncture in the lead up to conception and the outcomes of interviews with the women who received the acupuncture intervention. Methods: The acupuncture protocol used was developed by consensus. The clinical trial was a pragmatic design: 56 women were randomised to two groups one receiving a lifestyle-only intervention and the other acupuncture-plus-lifestyle with the manualised acupuncture intervention responsive to participants' presentation at the time of treatment. Half of the acupuncture recipients were interviewed in depth after the intervention. A mixed methods research methodology offered a richer data set with which to examine the outcomes for the trial population and the individual experiences of an acupuncture intervention. Results: The results for the acupuncture recipients include significant changes in fertility awareness, quality of life scores and time to conception measures. There were also positive menstrual changes indicated. Participant reports reinforced the importance of wellbeing for women with fertility problems and the contribution acupuncture treatments make to a sense of personal transformation. Conclusions: This study points to acupuncture as a safe and beneficial preparation for conception. It also provides additional guidance to practice in that it tested a particular acupuncture protocol that treated according to the menstrual cycle, TCM and biomedical diagnosis, and presenting symptoms. The study results also confirm the importance of understanding acupuncture as an intervention that assists women to transform themselves.