AN OVERVIEW OF COCHRANE REVIEWS IN ACUPUNCTURE

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Background: Many clinical trials have been conducted in the West since the early 1970s to investigate the clinical effects of acupuncture. Results from these trials have been synthesized in systematic reviews.

Objective: To assess the results of Cochrane reviews in acupuncture.

Methods: We performed a comprehensive computerized literature search in the Cochrane database. The literature search period covered 1996 to Mar 2008. Cochrane reviews in clinical effects of acupuncture and acupuncture-related therapy were included. The features of review were assessed: number and type of included trails, type of participants, treatment and control design, main outcome measures, main conclusion of the reviewer.

Results: Totally 24 papers were Cochrane reviews focusing on the clinical effects of acupuncture and acupuncture-related therapy. Eleven reviews (46%) covered neurological diseases and musculoskeletal disorders. The vast majority of trials included in these reviews were RCTs, but study design of RCT showed considerable heterogeneity and complexity. For chemotherapy-induced nausea or vomiting, and post-operative nausea, the results were considered positive. For neck disorders, idiopathic headache and chronic low back pain, the evidence was considered promising, but more and better- quality research was needed. Most Cochrane reviews of acupuncture were reported as insufficient evidence or inconclusive result because of inadequate number or lower methodological quality of included RCTs.

Conclusions: Most Cochrane reviews in the clinical effects of acupuncture were reported as insufficient evidence or inconclusive result, except for chemotherapy-induced nausea or vomiting, and post-operative nausea. More better-quality RCTs of acupuncture are needed if clear conclusions are to be drawn about clinical effects of acupuncture.

Key words: acupuncture, Cochrane review, systematic review, RCT

Introduction

Acupuncture is a medical modality that originated more than 3,000 years ago in China

and is widely practiced in most of the world. This therapy involves the stimulation of defined points (acupoints) on the skin typically by fine needles and heat (moxibustion)¹. Related techniques such as

manual (acupressure), electrical or laser stimulation of acupoints are also used. Traditionally, acupuncture is based on the theory of channels, which serve as pathways for energy (Qi), and can be used to treat a variety of diseases and symptoms.

Acupuncture is one the most well-researched therapeutic interventions in complementary and alternative medicine, but it remains a highly controversial subject. Many clinical trials have been conducted in the West since the early 1970s to investigate the clinical effects of acupuncture. The first systematic reviews and meta-analyses of acupuncture clinical trials started appearing in the late 1980s. To date, a number of systematic reviews or meta-analyses have been published. These reviews are attempts at scientifically evaluating the weight of evidence of efficacy of acupuncture in particular areas². Systematic reviews of randomized controlled trials (RCTs) have been considered "gold standard" of evidence for treatment efficacy within evidencebased medicine (EBM).

In 1996 the Cochrane Collaboration agreed to establish a field for reviewing trials of complementary medicine field within the Cochrane Collaboration. The guidelines and methods of conducting meta-analyses and systematic reviews of acupuncture became more standardized³. Cochrane reviews are noted to be of superior methodological quality and less prone to bias compared to reviews published in conventional medical journals⁴. The purpose of the study is to perform an overview of Cochrane reviews in acupuncture.

Materials and Methods

Computerized literature searches were

performed using the Cochrane database. The search item used was acupuncture, electroacupuncture (EA), moxibustion or acupressure in title, abstract or keywords. The literature search period covered 1996 to Mar 2008. To determine which studies would be assessed further, we scanned the title and abstract of each record. If the information included a Cochrane review about the clinical effects of acupuncture, the full paper was obtained for further assessment. Other reviews, clinical trials, methods studies, or technology assessments were excluded.

The included Cochrane reviews were then divided into two groups according to title and abstract: reviews focusing on acupuncture and acupuncture-related therapy, and reviews focusing on other interventions. We assessed the following features of the former reviews: number and type of included trails, type of participants, treatment and control design, main outcome measures, main conclusion of the reviewer. The latter reviews were briefly assessed, and only the conclusion about acupuncture was extracted.

Results

According to the search strategy, we obtained 59 potentially relevant papers out of 5171 records in The Cochrane Database of Systematic Reviews. After selection (according to include and exclude criteria), 43 papers were indentified and the full paper was obtained. Two papers belonged to withdrawn reviews and were excluded too. Finally 41 papers were divided into two groups⁵⁻⁴⁵. Twenty-four papers were Cochrane reviews focusing on the clinical effects of acupuncture ad acupuncture-related therapy (Table 1), and 17 reviews focused on other interventions (Table

Table 1. Cochrane reviews of acupuncture and acupuncture-related therapy

| Main Conclusion | Moderate evidence for short-term pain relief. There is a need for acupuncture trials with adequate sample size that addressing the longterm efficacy or effectiveness of acupuncture. | Little evidence to support or refute the use of acupuncture for shoulder pain due to a small number of clinical and methodologically diverse trials. | Current evidence is not sufficiently extensive or rigorous to support the use of acupuncture due to poor methodological quality and significant clinical heterogeneity of RCTs. | The conclusions are limited by methodological considerations. | No clear evidence of benefit. Large, methodologically sound trials are required. |
|-------------------------------|--|---|--|---|---|
| Ma | Moderate evidence There is a need for adequate sample siz term efficacy or effi | Little evidence to stacupuncture for she number of clinical trials. | Current evidence is not sufficienting rigorous to support the use of a to poor methodological quality clinical heterogeneity of RCTs. | The conclusions are considerations. | No clear evidence of benefit. Large, methodologically sound trials are re- |
| Main outcome measures | pain reduction, subjective improvement, disability | need for follow-up steroid injection, pain reduction, range of movement and functioning | sleep quality, sleep latency, Current evidence is not sufficiently extensive c sleep duration, sleep efficiency, rigorous to support the use of acupuncture due to poor methodological quality and significant clinical heterogeneity of RCTs. | pain reduction, disease activity, general health, global assessment, number of tender or swollen joints, decrease of analgesic intake, CRP, ESR | death, activities of daily living, neurological deficits, distribution of stroke survivors, |
| Treatment and control design* | ac vs sham or active treatment or inactive treatment or wait-list control | ac vs placebo or steroid injection or ultrasound, EA vs ganglion and nerve block, ac+mobilization vs ac, ac+exercise vs exercise, ac vs tragar, deep vs shallow ac, Jing Luo vs traditional Chinese medicine ac | ac vs no treatment or sham or placebo treatment, ac+baseline medication or treatment vs baseline medication or treatment | ac vs placebo, EA vs placebo | ac+standard rehabilitation vs sham ac+standard rehabilitation or standard rehabilitation alone, |
| Type of participants | myofascial neck pain, chronic mechanical neck disorders, neck disorders with radiculopathy | rorator cuff disorder, adhesive capsulitis, shoulder pain of musculoskeletal origin | insomnia | definite or classic rheumatoid arthritis | acute ischemic stroke, acute hemorrhagic stroke (except SAH) |
| Condition (included trials) | neck disorders (9 RCT, 1quasi-RCT) | shoulder pain (9 RCT) | insomnia (7 RCT) | rheumatoid arthritis (2 RCT) | acute stroke (14 RCT) |
| Author year | Trinh ⁵ 2006 | Green ⁶ 2005 | Cheuk ⁷ 2007 | Casimiro ⁸ 2005 | Zhang ⁹ 2005 |

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| Author year | Condition (included trials) | Type of participants | Treatment and control design* | Main outcome measures | Main Conclusion |
| Rothbone ¹⁰ | schizophrenia (5 RCT) | schizophrenia | EA alone or plus medication vs global state sca medication, laser ac+moxibustion adverse events vs laser ac+moxibustion+medicat ion vs medication | global state scale, mental state, adverse events | Insufficient evidence to recommend the use of acupuncture for people with schizophrenia. More comprehensive and better designed studies are needed. |
| Lim ¹¹ 2006 | irritable bowel syndrome (6 RCT) | irritable bowel syndrome | ac vs sham, ear EA vs medication, ac vs Chinese herbal medicine, ac+psychotherapy vs ac/psychotherapy | general well-being, change in symptoms, QOL | Still inconclusive. Further investigation is required. |
| White ¹² 2006 | smoking cessation (24 RCT) | tobacco smoker | ac vs wait-list/no intervention or sham, ac vs other intervention, and ac as an adjunct, interventions related to ac | abstinence from smoking, reduction on cigarette consumption, withdraw symptoms, | No consistent evidence. Methodological problems mean that no firm conclusion can be drawn. |
| Gates ¹³ 2006 | cocaine dependence (6 RCT) | cocaine dependency | ear ac vs sham, ear ac+baseline treatment vs sham+baseline treatment or baseline treatment alone | cocaine use, severity of dependence, attrition, cocaine craving | Still inconclusive. Further investigation is required. |
| Cheuk ¹⁴ 2006 | epilepsy (3 RCT) | epilepsy syndrome | ac+Chinese herbs vs Chinese herbs, ac vs sham | seizure reduction, EEG, QOL | No strong evidence for acupuncture as a treatment for epilepsy |
| He ¹⁵ | Bell's palsy (6 RCT) | Bell's palsy | ac+medication vs medication, ac vs medication, EA vs manipulation, ac vs physical therapy | cure, improvement of symptoms | Still inconclusive because of quality of the trials. |
| Carney ¹⁶ 2003 | chronic asthma (11 RCT) | chronic asthma | needle ac vs sham or mock TENS PFT, rescue medication or sham laser ac, laser ac vs sham usage, QOL, improvement laser ac of symptoms, immunologic parameters | PFT, rescue medication usage, QOL, improvement of symptoms, immunologic parameters | Still inconclusive because of methodological inconsistencies and problems. |

Table 1. Continued.

| Author year | Condition (included trials) | Type of participants | Treatment and control design* | Main outcome measures | Main Conclusion |
|---------------------------------|--|--|---|--|--|
| Smith ¹⁷ 2004 | depression (7 RCT) | depression | ac vs medication or wait- list control or non specific ac, ac+medication vs medication or ac+placebo, | reduction in the severity of depression, improvement in depression | Insufficient evidence to determine the efficacy of acupuncture. More research is needed. |
| Furlan ¹⁸ 2005 | low back pain (35 RCT) | acute LBP, chronic LBP | ac vs no treatment or placebo or sham or other intervention, ac+an intervention(Chinese herbs, medication, etc) vs the intervention alone, other comparisons | pain relief, functional improvement, work status, physical examination, complication, | No firm conclusions about the efficacy of acupuncture for acute LBP. Acupuncture and dry needling may be useful adjuncts to other therapies for chronic LBP. Most of the studies were of lower methodological quality. |
| Green ¹⁹ 2002 | lateral elbow pain (4 RCT) | lateral/epicondyle pain, chronic tennis elbow pain | needle ac vs placebo, laser ac vs placebo, ac+medication vs medication alone | pain relief | Insufficient evidence to either support or refute the use of acupuncture in the treatment of lateral elbow pain. |
| Wu ²⁰ 2006 | stroke rehabilitation (5 RCT) | ischemic stroke, ischemic and hemorrhagic stroke | ac+baseline treatment vs sham+baseline treatment, ac+baseline medication or treatment vs baseline medication or treatment | improvement of global neurological deficit, improvement of motor function | improvement of global No clear evidence on the effects of acupuncture neurological deficit, on subacute or chronic stroke. Large, improvement of motor function methodologically sound trials are required. |
| $\frac{\text{Peng}^{21}}{2007}$ | vascular dementia (0 RCT) | | | | No evidence from RCT. |
| Ezzo ²² 2006 | chemotherapy- induced nausea or vomiting (11 RCT) | cancer patients receiving chemotherapy | acupressure/EA/ TENS+medication vs medication alone, acupressure/ EA/TENS+medication vs sham+medication, needle ac vs placebo | acute nausea or vomiting, delayed nausea or vomiting | EA reduced first-day vomiting. Acupressure reduced first-day nausea. TENS showed no benefit. |

Table 1. Continued.

| Author year | Condition (included trials) | Type of participants | Treatment and control design* | Main outcome measures | Main Conclusion |
|--------------------------------|---|--|---|--|---|
| Proctor ²³ 2002 | primary dysmenorrhoea (9 RCT) | primary dysmenorrhoea | TENS/ac vs placebo or medication, ac vs wait-list, TENS vs ac, high frequency TENS vs low frequency TENS | improvement of symptoms, use of pain medication, uterine activity | Insufficient evidence to determine the effectiveness of acupuncture in reducing dysmenorrhoea. High frequency TENS was found to be effective. |
| Melchart ²⁴ 2001 | idiopathic headache (25 RCT, quasi- RCT) | migraine, tension-type headache, various types of headache | ac vs physiotherapy or placebo or reduction in pain and wait-list or sham or mock-TENS medication, improver or medication | reduction in pain and medication, improvement of overall function | The existing evidence supports the value of acupuncture for the treatment of idiopathic headache. However, the quality and amount of evidence are not fully convincing. |
| $\frac{\text{Law}^{25}}{2007}$ | glaucoma (0 RCT) | | | | No evidence from RCT or quasi-RCT. |
| Smith ²⁶ 2004 | induction of labor (1 RCT) | pregnant women(third trimester) | ac vs no treatment | clinical parameters during labour, the need for oxytocin augmentation, the mode of birth | Insufficient evidence to determine the effectiveness of acupuncture to induce labour |
| Lee ²⁷ 2004 | postoperative nausea and vomiting (26 RCT) | surgical patients | acupressure vs placebo or sham nausea, vomiting, i or medication or no treatment, ac/ rescue antiemetics EA/TENS vs sham or medication, laser stimulation vs sham | nausea, vomiting, incidence of rescue antiemetics | Support the use of P6 acupoint stimulation in patients without antiemetic prophylaxis. Seems to reduce the risk of nausea but not vomiting. |
| Coyle ²⁸ 2005 | breech presentation (3 RCT) | breech presentation women with a singleton (3 RCT) breech presentation | moxibustion vs no treatment or EA, moxibustion+ac vs no treatment | presentation at birth, fetal motor activity, Apgar score, incidence of caesarean section, treatments needed for correction | Insufficient evidence to support the use of moxibustion to correct a breech presentation. |

ac, acupuncture; QOL, quality of life; EEG, electroencephalography; PFT, pulmonary function test; LBP, low back pain * The definition of study design based on individual review.

Table 2. Cochrane reviews of other interventions

| Author /year | Condition (intervention) | Conclusion about acupuncture |
|--------------------------------|--|---|
| Pennick ²⁹ 2007 | pelvic and back pain in pregnancy(any intervention) | Acupuncture added to usual prenatal care appeared to reduce back or pelvic pain more than usual prenatal care. Acupuncture seems to be more effective than physiotherapy. |
| Smith ³⁰ 2006 | pain management in labour(complementary and alternative therapy) | Acupuncture may be beneficial for the management of pain during labour. However, the number of women studied has been small. |
| Glazener ³¹ 2005 | nocturnal enuresis in children(complementary therapy) | There is weak evidence to support the use of acupuncture. Further research is needed. |
| Furlan ³² 2002 | low back pain(soft tissue manupulation) | The evidence suggests that acupuncture massage is more effective than classic massage, but more studies are needed to confirm. |
| Zhu ³³ 2007 | primary dysmenorrhoea(Chinese herbal medicine) | Chinese herbal medicine resulted in better pain relief than acupuncture. Results are limited by the poor methodological quality of the included trails. |
| Verhagen ³⁴ 2007 | whiplash injury(conservative intervention other than drugs) | No clear conclusions can be drawn about the most effective therapy for patients with acute, subacute or chronic whiplash-associated disorders. |
| Connor ³⁵ 2003 | carpal tunnel syndrome(non-surgical treatment other than steroid injection) | Laser acupuncture did not demonstrate symptom benefit when compared to placebo. More trials are needed. |
| Al-Ani ³⁶ 2004 | temporomandibular pain dysfunction syndrome(stabilisation splint therapy) | There is insufficient evidence either for or against the use of stablilisation splint therapy over other active interventions. |
| Osiri ³⁷ 2000 | knee osteoarthritis(TENS) | TENS and acupuncture-like TENS are shown to be effective in pain control over placebo in this review, but more well-designed studies are needed to determine overall effectiveness |
| Brosseau ³⁸ 2003 | rheumatoid arthritis in the hand(TENS) | Acupuncture-like TENS is beneficial for reducing pain intensity and improving muscle power scores over placebo. More well designed studies are needed to fully conclude the effect. |
| Thomas ³⁹ 2008 | urinary incontinence after stroke(any intervention) | Data from the available trials are insufficient to guide continence care of adults after stroke. Better quality evidence is required. |
| Kwan ⁴⁰ 2005 | conscious sedation and analgesia for oocyte retrieval during in vitro fertilization procedures | There is insufficient evidence to determine the effect of different methods of pain relief, including acupuncture, when compared with conscious sedation and analgesia. |
| Engers ⁴¹ 2008 | low back pain(patient education) | Patient education was no more effective than other intervention such as acupuncture, physiotherapy, massage, etc. |
| Jewell ⁴² 2003 | nausea and vomiting in early pregnancy(any intervention) | The evidence on P6 acupuncture or acupressure is mixed. It has not been shown to be clearly more effective than sham or dummy acupressure, or than standard dietary and lifestyle advice. |
| Ejnisman ⁴³ 2004 | rotator cuff tear(rehabilitation and surgery) | There is little evidence to either support or refute the efficacy of common interventions, including acupuncture. More well-designed studies are needed. |
| Haraldsson ⁴⁴ 2006 | mechanical neck disorders(soft tissue manupulation) | No recommendations for practice can be made because the effectiveness of massage for neck pain remains uncertain. |
| Vlassov ⁴⁵ 2006 | tuberculosis(low level laser therapy) | The use of low level laser therapy for treating tuberculosis is still not supported by reliable evidence. |

Table 3. Type of disorders investigated in Cochrane reviews of acupuncture

| Type of disorders | Name of disorder |
|-------------------------------------|--|
| Namious system | Acute stroke, stroke rehabilitation, Bell's palsy, epilepsy, idiopathic |
| Nervous system | headache, vascular dementia |
| Respiratory system | Chronic asthma |
| Museuleslatel system | Low back pain, rheumatoid arthritis, lateral elbow pain, neck disorders, |
| Musculoskeletal system | shoulder pain |
| Gostraintagtinal gystam | Irritable bowel syndrome, chemotherapy-induced nausea or vomiting, |
| Gastrointestinal system | post-operative nausea and vomiting |
| Mental disorders | Depression, insomnia, schizophrenia |
| Gynecologic and obstetric disorders | Induction of labour, breech presentation, primary dysmenorrhoea |
| Others | Smoking cessation, glaucoma, cocaine dependence |

2).

Among the reviews focusing on acupuncture and acupuncture-related therapy, 11 reviews (46%) covered neurological and musculoskeletal disorders (Table 3). One review aimed at moxibustion (breech presentation) and 1 review at auricular acupuncture (cocaine dependence)^{13,28}.

The median number of included trials was 9 with a range of 0 to 35. The vast majority of trials included in these reviews were RCTs. Only 2 reviews (neck disorders and idiopathic headache) included very few quasi-RCTs^{5,24}. The study design showed considerable heterogeneity and complexity. There were many different forms of intervention used in treatment and control groups. The treatment group could be needle acupuncture, laser acupuncture, acupressure, EA, transcutaneous electrical nerve stimulation (TENS), acupuncture therapy plus baseline intervention, etc. Most control groups were wait-list, sham, placebo or baseline intervention. Various forms of outcome measures were used in trails, including symptom reduction, functional improvement, physiological or laboratory test, reduction of medication, adverse effect, mortality,

etc.

In respect of conclusion, 2 reviews (glaucoma and vascular dementia) could not find any suitable trials and no conclusion drawn^{21,25}. Seventeen reviews (71%) were reported as insufficient evidence or inconclusive result because of inadequate number or lower methodological quality of RCTs. For chemotherapy-induced nausea or vomiting, and post-operative nausea, the results were considered positive^{22,27}. For neck disorders and idiopathic headache, the evidence was considered promising, but more and better quality research was needed^{5,24}. A Cochrane review showed acupuncture and dry needling may be useful adjuncts to other therapies for chronic LBP, but most of the included studies were still of lower methodological quality¹⁸.

Discussion

In 1997, the National Institute of Health (NIH) review of the literature listed three conditions for which acupuncture was considered as having demonstrated effectiveness: adult nausea and vomiting of chemotherapy, adult postoperative

nausea and vomiting, and postoperative dental pain. There are other situations such as addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, carpal tunnel syndrome, and asthma, in which acupuncture may be useful as an adjunct treatment or an acceptable alternative or be included in comprehensive management program⁴⁶. However, this was not a systematic examination of the literature.

In the past decade, many rigorous systematic reviews or meta-analyses of the clinical effectiveness of acupuncture have been conducted 1,2,47,48. General international agreement has emerged that acupuncture appears to be effective for postoperative dental pain, postoperative nausea and vomiting, and chemotherapy-related nausea and vomiting. For some pain disorders, the evidence was considered promising. In Cochrane reviews, convincing evidence was available only for chemotherapy-induced nausea or vomiting, and post-operative nausea. There was no Cochrane review conducted for dental disease. Acupuncture may be beneficial in some pain disorders, including neck pain, headache and chronic low back pain. The results of Cochrane reviews were grossly consistent with the NIH Consensus Statement and other rigorous reviews.

The NIH Consensus Statement has showed that many trials provided equivocal results because of design, sample size and other factors. There is almost universal agreement that the quality of clinical trials of acupuncture is poor. Almost every review found major problems with the quality of the clinical trials, such as insufficient sample size, vague enrollment criteria, testing in poorly defined illnesses with imprecise outcomes, and using inappropriate study

designs. These problems made it difficult to draw clear conclusions 1,2,47,49. The same condition was also noted in Cochrane reviews. Most reviews could not provide conclusive results because of lower methodological quality or inadequate number of included RCTs. There is an urgent need to conduct high-quality trials of acupuncture. More precise standards of reporting of interventions in RCTs of acupuncture are also important, such as acupuncture rationale, needle details, treatment regimen, cointerventions, control interventions, etc^{49,50}. If betterquality studies can be conducted and reported, results of trials can be more clearly interpreted and accepted, and fairer comparisons made in meta-analyses or systematic reviews of these studies.

Systematic reviews constitute the highest level of evidence and provide the strongest strength of inference about the efficacy of clinical interventions. Although the Cochrane collaboration has set the standards for preparing and maintaining highquality systematic reviews, in an assessment of Cochrane reviews, 29% reviews were found to have major limitations⁵¹. For acupuncture, the limitations observed in systematic reviews include use of inappropriate inclusion-exclusion criteria, judgments about the adequacy of acupuncture techniques, study quality scoring, and the representation of study results⁵². In addition to these limitations, a less than comprehensive and nonstandardized approach to selecting different data bases is likely to compromise the review quality. Considerable methodological diversity exists in the comprehensiveness of databases searches for Cochrane reviews of acupuncture. This diversity makes the reviews prone to bias and adds another layer of complexity in interpreting the acupuncture literature⁵³. For the reason given above, the methodologies of systematic reviews of acupuncture also need to be improved and that many systematic reviews need to be updated using more high quality RCTs.

As an overview of Cochrane reviews, this paper has several weaknesses. First, it assesses only one database and focused on the reviews in limited disorders. A number of disorders are not evaluated in Cochrane review. Second, while it provided a global overview, it does not necessarily add weight to the findings of individual reviews and included trials. Finally, it was not necessary for the purpose of this overview to enter into a detailed discussion of the methodology of RCT and systematic review in acupuncture.

Conclusions

Most Cochrane reviews in the clinical effects of acupuncture and acupuncture-related therapy were reported as insufficient evidence or inconclusive result, except for chemotherapy-induced nausea or vomiting, and post-operative nausea. But the absence of evidence is not evidence of its absence. More better-quality RCTs are needed if clear conclusions are to be drawn about most of the conditions for which acupuncture is commonly used. Improved trial quality will lead to greater ease interpreting the results of RCTs, especially in systematic reviews. Workers in the field should be encouraged to perform large well-designed trials.

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AN OVERVIEW OF COCHRANE REVIEWS IN ACUPUNCTURE

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背景:從70年代早期開始西方國家即以臨床試驗評估針灸的臨床療效,這些試驗的結果 也紛紛被系統回顧所引用。

目的:針對Cochrane review的結果進行全面性的回顧。

方法:我們利用網路搜索Cochrane資料庫,搜索時段為1996年到2008年3月。針灸與針灸相關療法臨床療效的Cochrane review被納入分析。回顧報告的下列特點將被評估:納入的試驗類型與數目、病人類型、治療與對照設計、主要結果測量以及reviewer的結論。

討論:總共獲得24篇評估針灸或其相關療法療效的Cochrane review,其中有11篇(46%)評估神經與骨骼肌肉系統疾病的療效。大多數Cochrane review納入的研究為RCT(randomized controlled trials,隨機對照試驗),不過這些RCT的設計具有可觀的異質性與複雜性。Cochrane review顯示針灸對於化療後的噁心嘔吐與手術後噁心具有療效。對於頸部疾患、頭痛與慢性下背痛可能有效,但是需要更多較高品質的研究支持。不過大部分的Cochrane review因為RCT數量不夠或品質較差,而被報告為證據不足或無結論。

結論:除了化療後的噁心嘔吐與手術後噁心外,大多數評估針灸臨床療效的Cochrane review被報告為證據不足或無結論。若要對針灸的臨床療效做成明確的結論,更多品質較好的RCT是需要的。

關鍵字: acupuncture, Cochrane review, systematic review, RCT

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