Table des matières

Traumatic Brain Injury

Traumatismes crâniens : évaluation de l'acupuncture

1. Systematic Reviews and Meta-Analysis

☆☆☆	Evidence for effectiveness and a specific effect of acupuncture
☆☆	Evidence for effectiveness of acupuncture
☆	Limited evidence for effectiveness of acupuncture
Ø	No evidence or insufficient evidence

1.1. Generic acupuncture

1.1.1. Tan 2019 ☆

Tan L, Zeng L , Wang N , Deng M , Chen Y , Ma T , Zhang L , Xu Z. Acupuncture to Promote Recovery of Disorder of Consciousness after Traumatic Brain Injury: A Systematic Review and Meta-Analysis. Evid Based Complement Alternat Med. 2019. [197163].

Obejctive	Traumatic brain injury (TBI) has become an economic and social burden for patients and their families. While acupuncture is an effective tool for promoting recovery of disorder of consciousness (DOC) following TBI, there have been no comprehensive meta-analyses and/or systematic reviews addressing this topic. The present systematic review and meta-analysis aimed to assess the therapeutic efficacy of acupuncture for DOC after TBI.
Methods	All randomized controlled trials (RCTs) incorporating acupuncture, or acupuncture combined with other interventions for DOC after TBI, were included and assessed by two independent investigators. Six outcome indicators were assessed: Glasgow Coma Scale (GCS); Glasgow Outcome Scale (GOS); mortality; efficacy rate; activities of daily living (ADL); and functional comprehensive assessment. Direct comparisons were performed using RevMan 5.3.0 software, with results presented as mean difference (MD) for continuous outcomes and relative risk (RR) for binary outcomes.
Results	A total of **3511 patients from 49 trials** were included. Pooled analyses indicated that acupuncture may have a superior effect on GCS score (MD=2.03, 95% CI :1.92 2.43, Z=16.54, and P<0.00001); GOS score (RR=1.23, 95%CI: 1.18 1.35, Z=6.65, and P<0.00001); efficacy rate (RR=1.48, 95%CI: 1.40 1.56, Z=13.49, and P<0.00001); ADL (MD=9.20, 95% CI:8.19 10.21, Z=17.84, and P<0.00001); and mortality (RR=0.50, 95% CI:0.38 0.67, Z=4.70, and P<0.00001).
Conclusions	The results demonstrated that the acupuncture group fared better than the control group in the treatment of DOC after TBI. However, studies were generally of poor quality, and publication bias favoring positive studies was obvious. Therefore, rigorous evaluation standards and well-designed studies are necessary in future studies.

1.1.2. Wong 2013 Ø

Wong V, Cheuk DK, Lee S, Chu V. Acupuncture for acute management and rehabilitation of traumatic brain injury. Cochrane Database Syst Rev 2013. [156501].

Background	Traumatic brain injury (TBI) can be life threatening depending on the severity of the insult to the brain. It can also cause a range of debilitating sequelae which require cognitive, motor, communication, emotional, or behavioral rehabilitation of varying intensity and duration. A number of studies conducted and published in China have suggested that acupuncture may be beneficial in the acute treatment and rehabilitation of TBI.
Objectives	To determine the efficacy and safety of acupuncture in the acute management or rehabilitation (or both) of patients with a TBI, including cognitive, neurological, motor, communication, emotional, or behavioral complications, or a combination of such complications.
Methods	Search strategy: We searched the Cochrane Injuries Group Specialised Register, Cochrane Central Register of Controlled Trials 2008, Issue 2 (The Cochrane Library), MEDLINE, EMBASE, CINAHL, AMED, PsycINFO and others. We also searched the Chinese Acupuncture Studies Register, the Studies Register of the Cochrane Complementary Medicine Field, NCCAM, and NIH Clinical Studies Database. Three major Mainland Chinese academic literature databases (CNKI, VIP and Wang Fang Data) were also searched using keywords in simplified Chinese. Searches were completed in December 2009. selection criteria: randomized controlled studies evaluating different variants of acupuncture and involving participants of any age who had suffered a TBI. Included trials compared acupuncture with placebo or sham treatment, or acupuncture plus other treatments compared with the same other treatments. We excluded trials that only compared different variants of acupuncture or compared acupuncture alone against other treatments alone, as they did not yield the net effect of acupuncture. Data collection and analysis: Two review authors identified potential articles from the literature search and extracted data independently using a data extraction form. We performed methodological assessment of included studies using the Cochrane Collaboration's tool for assessing risk of bias. We were unable to perform quantitative data analysis due to insufficient included studies and available data.
Main results	Four RCTs, including 294 participants, reported outcomes specified by this review. Three investigated electro-acupuncture for TBI while one investigated acupuncture for acute TBI. The results seem to suggest that acupuncture is efficacious for these indications, however the low methodological quality of these studies renders the results questionable. No adverse effects of acupuncture were reported in any of the studies.
Authors' conclusion	The low methodological quality of the included studies does not allow us to make conclusive judgments on the efficacy and safety of acupuncture in either the acute treatment and/or rehabilitation of TBI. Its beneficial role for these indications remains uncertain. Further research with high quality trials is required.

1.1.3. Wong 2012 Ø

Wong V, Cheuk DK, Lee S, Chu V. Acupuncture for acute management and rehabilitation of traumatic brain injury. Cochrane Database Syst Rev 2012;CD007700. [168830]

> [Update of Cochrane Database Syst Rev 2011 (gera:141366)]. BACKGROUND: Traumatic brain injury (TBI) can be life threatening depending on the severity of the insult to the brain. It can also cause a range of debilitating

sequelae which require cognitive, motor, communication, emotional, or behavioral rehabilitation of varying intensity and duration. A number of studies conducted and published in China have suggested that acupuncture may be beneficial in the acute treatment and rehabilitation of TBI. OBJECTIVES: To determine the efficacy and safety of acupuncture in the acute management or rehabilitation (or both) of patients with a TBI, including cognitive, neurological, motor, communication, emotional, or behavioral complications, or a combination of such complications. SEARCH METHODS: We searched the Cochrane Injuries Group Specialised Register, Cochrane Central Register of Controlled Trials (The Cochrane Library),MEDLINE, EMBASE, CINAHL, AMED, PsycINFO and others. We also searched the Chinese Acupuncture Studies Register, the Studies Register of the Cochrane Complementary Medicine Field, NCCAM, and NIH Clinical Studies Database.Three major Mainland Chinese academic literature databases (CNKI, VIP and Wang Fang Data) were also searched using keywords in simplified Chinese.We searched all databases through December 2009, and some searches have been updated to October 2012. SELECTION CRITERIA: Randomized controlled studies evaluating different variants of acupuncture and involving participants of any age who had suffered a TBI. Included trials compared acupuncture with placebo or sham treatment, or acupuncture plus other treatments compared with the same other treatments.We excluded trials that only compared different variants of acupuncture or compared acupuncture alone against other treatments alone, as they did not yield the net effect of acupuncture. DATA COLLECTION AND ANALYSIS: Two review authors identified potential articles from the literature search and extracted data independently using a data extraction form. We performed methodological assessment of included studies using the Cochrane Collaboration's tool for assessing risk of bias.We were unable to perform quantitative data analysis due to insufficient included studies and available data. MAIN RESULTS: Four RCTs, including 294 participants, reported outcomes specified by this review. Three investigated electro-acupuncture for TBI while one investigated acupuncture for acute TBI. The results seem to suggest that acupuncture is efficacious for these indications,however the low methodological quality of these studies renders the results questionable. No adverse effects of acupuncture were reported in any of the studies. AUTHORS' CONCLUSIONS: The low methodological quality of the included studies does not allow us to make conclusive judgments on the efficacy and safety of acupuncture in either the acute treatment and/or rehabilitation of TBI. Its beneficial role for these indications remains uncertain.Further research with high quality trials is required.

1.1.4. Wong 2011 Ø

Wong V, Cheuk DK, Lee S, Chu V. Acupuncture for acute management and rehabilitation of traumatic brain injury. Cochrane Database Syst Rev. 2011;CD007700: . [141366]. Republié dans : Eur J Phys Rehabil Med. 2012;48(1):71-86. [165985].

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Methods	SEARCH STRATEGY: We searched the Cochrane Injuries Group Specialised Register, Cochrane Central Register of Controlled Trials 2008, Issue 2 (The Cochrane Library), MEDLINE, EMBASE, CINAHL, AMED, PsycINFO and others. We also searched the Chinese Acupuncture Studies Register, the Studies Register of the Cochrane Complementary Medicine Field, NCCAM, and NIH Clinical Studies Database. Three major Mainland Chinese academic literature databases (CNKI, VIP and Wang Fang Data) were also searched using keywords in simplified Chinese. Searches were completed in December 2009. SELECTION CRITERIA: Randomized controlled studies evaluating different variants of acupuncture and involving participants of any age who had suffered a TBI. Included trials compared acupuncture with placebo or sham treatment, or acupuncture plus other treatments compared with the same other treatments. We excluded trials that only compared different variants of acupuncture or compared acupuncture alone against other treatments alone, as they did not yield the net effect of acupuncture. DATA COLLECTION AND ANALYSIS: Two review authors identified potential articles from the literature search and extracted data independently using a data extraction form. We performed methodological assessment of included studies using the Cochrane Collaboration's tool for assessing risk of bias. We were unable to perform quantitative data analysis due to insufficient included studies and available data.
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1.2. Related symptoms

1.2.1. Insomnia following brain injury

see correponding item

2. Clinical Practice Guidelines

⊕ positive recommendation (regardless of the level of evidence reported)
Ø negative recommendation (or lack of evidence)

2.1. Department of Veterans Affairs Department of Defense (VA/DoD, USA) 2021 Ø

VA/DoD clinical practice guideline for the management and rehabilitation of post-acute mild traumatic brain injury. Department of Veterans Affairs Department of Defense. 2021. 128. [219436]. https://www.healthquality.va.gov/guidelines/Rehab/mtbi/VADoDmTBICPGFinal508.pdf

There is insufficient evidence to recommend for or against the use of any of the following interventions for the treatment of patients with symptoms attributed to mild traumatic brain injury: a. **Acupuncture** b. Tai chi c. Meditation d. Mindfulness e. Yoga f. Massage g. Chiropractic therapy h. Cranial electrotherapy stimulation (CES) i. Sensory deprivation tanks (Neither for nor against Reviewed, New-added)

2.2. Ontario Neurotrauma Foundation (ONF, Canada) 2014 ⊕

Guidelines for Diagnosing and Managing Pediatric Concussion. Ontario Neurotrauma Foundation (ONF). 2014:132p. [197329].

5.4a(iii): Consider non-pharmacological treatments to improve sleep. Consider acupuncture or mindfulness-based stress reduction therapy. 5.4b(iv): Consider non-pharmacological, complementary and/or alternative medicine therapies for headache. Consider biofeedback, acupuncture.

2.3. Colorado Division of Workers' Compensation (USA) 2012 ⊕

Colorado Division of Workers' Compensation. Traumatic brain injury medical treatment guidelines. Denver (CO): Colorado Division of Workers' Compensation. 2012; :119P. [168082].

Widely accepted treatments for post-traumatic headache may include, but are not limited to: interdisciplinary treatment, pharmacology, joint manipulation, physical therapy, massage, acupuncture, biofeedback, psychotherapy (i.e., cognitive behavioral therapy), and diet. There is strong evidence that acupuncture and sham acupuncture are prophylactic for migraines. There is good evidence that acupuncture has similar results as medication prophylaxis. There is some evidence that sham acupuncture is better than no treatment for migraine prophylaxis. These procedures should only be continued if functional gains are documented. Acupuncture, biofeedback, and cervical spinal manipulations are widely accepted and may be used for headaches or other painful conditions

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