

EBM Journal Club

中風偏癱患者針灸治療 對側與同側差異

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OUTLINE

- ▶ Background
- ▶ Scenario
- ▶ Ask(PICO)
- ▶ Acquire
- ▶ Appraisal
- ▶ Apply
- ▶ Audit

Background~巨刺、繆刺

- ▶ 九刺之一
- ▶ 《靈樞·官針》：“巨刺者，左取右，右取左”
→即人體一側有病，選取對側經穴治療
- ▶ 巨刺與繆刺均於痛處對側取穴
 - ◎巨刺刺經
 - ◎繆刺刺絡

Background~巨刺、繆刺

- ▶ 經絡本身“上下相連，左右貫通”，奠定了針刺治療中風的理論基礎。
- ▶ 針刺健側穴位調動其經脈之氣以驅患側同經之邪
- ▶ 當一側經脈阻塞時，可通過調節對側同名經或相應腧穴，起到調整左右氣血偏盛偏衰及整體氣血再平衡的作用

Scenario

- ▶ 一位75歲腦中風患者至中風會診門診接受治療
- ▶ 主治醫師針灸時，除了患肢穴道外，也選取了健側的穴道
- ▶ 患者充滿疑惑地詢問：「請問為何健康的手腳也要針灸？針在健側與患側的差異為何？」

5 Step to Practice EBM~5A

- ▶ **Ask(PICO)**
提問:由個案的臨床資料提出可回答的臨床問題
- ▶ **Acquire**
尋找最佳的實證文獻(各文獻資料庫，包括發表及未發表的資料)
- ▶ **Appraisal**
評估最佳實證醫學文獻的可信度、臨床重要性、以及可應用性
- ▶ **Apply**
整合並應用於實際患者的治療決策(臨床應用)
- ▶ **Audit**
溝通:以簡單病人可以聽懂的语言，告知各種處置之可能利益與風險(效果評估)

Ask (PICO) : ask a clinical question

PICO	
Problem 病人問題	Post-stroke hemiplegia
Intervention 介入處置	Contralateral acupuncture
Comparison 對照處置	Ipsilateral acupuncture
Outcome 臨床結果	Rehabilitation, treatment outcome

Aquire

- Database
 - Uptodate
 - the Cochrane library
 - Pubmed
 - 本土資料庫
- Search keywords
 - Stroke
 - Acupuncture
 - Contralateral/contralateral/opposing

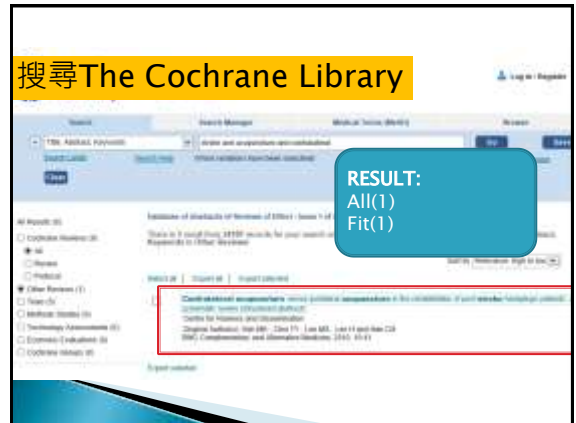


搜尋Uptodate



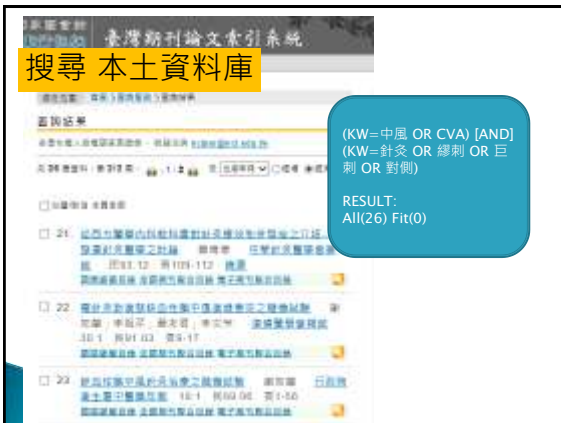
RESULT:
無相關的文獻摘要

搜尋The Cochrane Library



RESULT:
All(1)
Fit(1)

搜尋 本土資料庫



(KW=中風 OR CVA) [AND]
(KW=針灸 OR 繚刺 OR 巨刺 OR 對側)

RESULT:
All(26) Fit(0)

搜尋Pubmed



RESULT:
All(23) Fit(4)



Neural Regeneration Research
Pubmed (1)
 IF:0.234

2014;5(2):214-21. doi: 10.1089/neu.2013.11.204.

Contralateral needling of unblocked collaterals for hemiplegia following acute ischemic stroke.

Wang JF, Guo Z, Wang P.
 © Author information

Abstract
 Hemiplegia caused by stroke indicates dysfunction of the network between the brain and limbs, namely unilateral stroke in the brain. Contralateral needling is the insertion of needles into acupoints on the relative healthy side of the body to treat diseases such as apoplexy. However, there is well-designed and controlled clinical evidence for this practice. This study investigated whether contralateral needling could treat hemiplegia after acute ischemic stroke in 106 randomly selected patients with acute ischemic stroke. These patients were randomly assigned to three groups: 45 contralateral needling group, receiving acupuncture on the unaffected limbs; 45 in the control acupuncture group, receiving acupuncture on the hemiplegic limbs; and 16 in the control group, receiving routine treatment without acupuncture. Assessment of acupoints (Chao J.L.R.) in the upper limb and Jintan (TE-4) in the lower limb were performed for 45 minutes daily for 30 consecutive days. The therapeutic effective rate, Neurological Deficit Score, Modified Barthel Index and Fugl-Meyer Assessment were evaluated. The therapeutic effective rate of contralateral needling was higher than that of conventional acupuncture (45.7% vs. 31.1%, $P < 0.05$). The neurological deficit score of contralateral needling was significantly decreased compared with conventional acupuncture ($P < 0.01$). The Modified Barthel Index and Fugl-Meyer Assessment scores of contralateral needling increased more significantly than those of conventional acupuncture (both $P < 0.01$). The present findings suggest that contralateral needling outlasts address and might be more effective than conventional acupuncture in the treatment of hemiplegia following acute ischemic stroke.

KEYWORDS: acupuncture, rehabilitation, hemiplegia

針灸健側(n:45)
針灸患側(n:45)
control(n:16)

尺澤 肩髃(45分/天 *30天)

OUTCOMES
 Therapeutic effective rate
 Neurologic Deficit rate
 Modified Barthel Index
 Fugl-Meyer Assessment
 健側組比患側組有明顯差異

Pubmed(2)

2012;2012:1-12

Contralateral needling in the treatment of hemiplegia due to acute ischemic stroke.

Wang JF, Guo Z, Wang P, Ma J.
 © Author information

Abstract
 Contra-lateral Needling, a traditional acupuncture technique, inserts contra-lateral acupoints by inserting needles into acupoints on the relative healthy side of the body opposite to the injured side to treat diseases such as apoplexy with high efficacy. However, there are not many well-designed and controlled clinical evidences found in the literature. Therefore the present study was designed to assess its therapeutic responses in the treatment of hemiplegia due to acute ischemic stroke. A clinical study was conducted with randomly selected 106 patients who have acute ischemic stroke confirmed by MRI. The subjects were assigned into 3 groups: 45 in the contra-lateral needling group received acupuncture on the unaffected limbs; 45 in the conventional acupuncture group received acupuncture on the hemiplegic limbs; and 16 in the non-acupuncture group received the similar medical and nursing care as subjects in other two groups but no acupuncture treatment. Acupuncture was given daily for 45 minutes for 30 days. The clinical therapeutic response rate, Neurological Deficit Score (NDS), Modified Barthel Index (MBI) and Fugl-Meyer Assessment (FMA) were used to evaluate the effectiveness of 30 days treatment. The therapeutic response rate of the contra-lateral needling group was 46.67%, while 31.11% in the conventional acupuncture group and 16.33% in the non-acupuncture group. The NDS of Contra-lateral needling group decreased more significantly than that of the conventional acupuncture group ($P < 0.01$). The study also found that the MBI and FMA of Contra-lateral needling group increased more significantly than those of the conventional acupuncture in the treatment of hemiplegia due to acute ischemic stroke in terms of increasing the recovery of neurological function, promoting ADL activities for daily living rehabilitation and the limbs motor function.

PMID: 22822719 (PubMed - filtered by MEDLINE)

尺澤 肩髃

Pubmed(3) 與Cochrane Library同篇

2010;2010:166-174. doi: 10.1089/neu.2009.11.141.

Contralateral acupuncture versus ipsilateral acupuncture in the rehabilitation of post-stroke hemiplegic patients: a systematic review.

Wang JF, Guo Z, Wang P, Ma J, He J.
 © Author information

Abstract
BACKGROUND: Contralateral acupuncture (CAT) involves inserting needles in the meridians on the side opposite the disease location and is often used in post-stroke rehabilitation. The aim of this systematic review is to summarize and critically evaluate the evidence for and against the effectiveness of CAT for post-stroke rehabilitation as compared to ipsilateral acupuncture (IAT).

METHODS: Scopus and databases were searched from their inception through June 2010. Prospective clinical trials were included if CAT was tested as the sole treatment or as an adjunct to other treatments for post-stroke rehabilitation and compared to IAT.

RESULTS: Eight randomized clinical trials (RCTs) met our inclusion criteria. Four of them reported favorable effects of CAT compared to IAT for at least one outcome. A meta-analysis showed superior effects of CAT compared to IAT on recovery rate ($n = 381$, risk ratio (RR): 1.12, 95% confidence intervals (CI), 1.04 to 1.22; $P = 0.005$). Subgroup analysis also showed favorable effects of using CAT in patients with cerebral infarction ($n = 261$, RR: 1.15, 95% CI, 1.04 to 1.27, $P = 0.005$). Further analysis including patients with cerebral infarction and intracerebral hemorrhage, however, failed to show these advantages ($n = 306$, RR: 1.11, 95% CI, 0.85 to 1.48, $P = 0.43$).

CONCLUSION: The results of our systematic review and meta-analysis suggest that there is limited evidence for CAT being superior to IAT in the treatment of post-stroke infarction. The trial duration of RCTs included in our analysis was low, however, and the RCTs included had a high risk of bias. Future RCTs appear to be warranted.

Pubmed(4)

2009;13(4):299-304

[Objective on therapeutic effect of opposing needling for treatment of poststroke shoulder-hand syndrome].

(Article in Chinese)

Wang JF, Guo Z, Wang P, Ma J, He J.
 © Author information

Abstract
OBJECTIVE: To compare the therapeutic effects of opposing needling and routine acupuncture for treatment of poststroke shoulder-hand syndrome.

METHODS: Study cases were randomly divided into an opposing needling group and a routine acupuncture group. 30 cases in each group. In this two groups, 15 cases (TE-15), Jianyu (TE-14), Hegu (LI-4), etc.) were selected with on the healthy side selected for the opposing needling group and on the affected side selected for the routine acupuncture group. The motor function of the affected limbs was evaluated by Fugl-Meyer scale, activity of daily living by ADL scale, and pain by VAS, and the volume degree was investigated before and after treatment.

RESULTS: There were significant differences between the two groups in the scores of Fugl-Meyer for the upper limb motor function, activity of daily living (both $P < 0.05$), with the opposing needling group being significantly higher than the routine acupuncture group ($P < 0.05$), after treatment. Both the volume degree and the pain score were significantly lower in the opposing needling group than in the routine acupuncture group ($P < 0.05$).

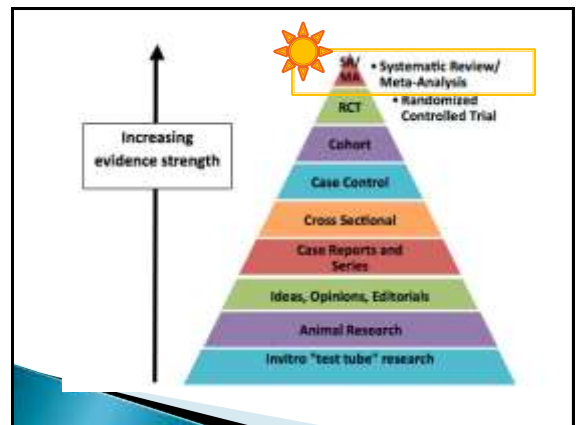
針灸健側(n:30)
針灸患側(n:30)

尺澤 肩髃 曲池 合谷 (theurapeutic course*2)

OUTCOMES
 Fugl-Meyer scale
 ADL scale
 edema degree
 VAS 痛阻肩屈度(P<0.05)

poststroke shoulder-hand syndrome(n:60)

明顯差異 (P<0.05)



Grade of Recommendation	Level of Evidence	Therapy
[A]	1a	Systematic review (with homogeneity) of RCTs
	1b	Single RCT (randomized controlled trial)
	1c	'All-or-none'
[B]	2a	Systematic review of cohort studies
	2b	Cohort study or poor RCT
	2c	'Outcomes' research
	3a	Systematic review of case-control studies
	3b	Case-control study
[C]	4	Case series
[D]	5	Expert opinion, physiology, bench research



The main result(1)

- ▶ Total 8 RCTs
- ▶ 4 RCTs reported favorable effects of CAT compared to IAT for at least one outcome.
- ▶ Meta-analysis showed superior effects of CAT compared to IAT on recovery rate.
- ▶ Subgroup analysis also showed favorable effects of using CAT on patients with cerebral infarction.
- ▶ Further analysis including patients with cerebral infarction and intracranial hemorrhage failed to show these advantages.

The main result(2)

- ▶ The total number of RCTs included in our analysis was low, however, and the RCTs included had a high risk of bias.
- ▶ The results of this review suggested there was limited evidence that contralateral acupuncture had superior benefits compared with ipsilateral acupuncture in post-stroke rehabilitation due to the paucity of well-designed trials.

Appraisal



- ◉ VIP
 - Validity
 - Impact
 - Practice Applicability
- ◉ Oxford CEBM Critical Appraisal Sheets
 1. 此篇系統回顧是否提出明確定義的問題？
 2. 是否此篇回顧的搜尋策略可能有遺漏可能合適的臨床試驗？
 - 3-1. 研究收錄標準是否有明確的界定？
 - 3-2. 關於研究族群、涉入治療、比較分組及結果評估是否適切？
 4. 所收錄的研究是否有效力(valid)的研究 (randomization, blinding and completeness of follow-up) ？
 5. 如果有meta-analysis, 所收錄的研究是否有足夠的一致性以產生合併的資料？

1. 此篇系統回顧是否提出明確定義的問題？(PICO)

SYSTEMATIC REVIEW: Are the results of the review valid?

What question (PICO) did the systematic review address?

What is best?

The main question being addressed should be clearly stated. The exposure, such as a therapy or diagnostic test, and the outcome(s) of interest will often be expressed in terms of a simple relationship.

Where do I find the information?

The Title, Abstract or first paragraph of the Introduction should clearly state the question. If you still cannot ascertain what the focused question is after reading these sections, search for another paper!

This paper: Yes No Unclear

Comment:

1. 此篇系統回顧是否提出明確定義的問題？(PICO) →Yes

▶ 標題

Intervention Comparison
 Problem Outcome??

Contralateral acupuncture versus ipsilateral acupuncture in the rehabilitation of post-stroke hemiplegic patients: a systematic review

2. 是否此篇回顧的搜尋策略可能有遺漏可能合適的臨床試驗？

F - Is it unlikely that important, relevant studies were missed?

<p>What is best?</p> <p>The starting point for comprehensive search for all relevant studies is the major bibliographic databases (e.g., Medline, Cochrane, EMBASE, etc.) but should also include a search of reference lists from relevant studies, and contact with experts, particularly to inquire about unpublished studies. The search should not be limited to English language only. The search strategy should include both MeSH terms and text words.</p>	<p>Where do I find the information?</p> <p>The Methods section should describe the search strategy, including the terms used, in some detail. The Results section will outline the number of titles and abstracts reviewed, the number of full-text studies reviewed, and the number of studies excluded together with the reasons for exclusion. This information may be presented in a figure or flow chart.</p>
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This paper: Yes No Unclear

Comment:

2. 是否此篇回顧的搜尋策略可能有遺漏可能合適的臨床試驗？ →Maybe

Methods
 Databases
 The following databases were searched from their inception through June 2013: MEDLINE, EMBASE, CINAHL, AMED, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects, Cochrane Methodology Register, a Chinese medical database (CNKI), five Japanese medical databases (Journal Archive, Science Link Japan, and Japan Science & Technology Link), 6 Korean medical databases (The Research Information Service System, Korean Studies Information, DBPA, Korea Institute of Science and Tech and Korean National Korean traditional or Oriental Injural Medicine, Joeri

→有明確指出搜尋方式及關鍵字但受到語言限制

2. 是否此篇回顧的搜尋策略可能有遺漏可能合適的臨床試驗？ →Maybe

→結果有註明回顧論文總數量及排除數量(及原因)但沒註明有幾位reviews

3-1. 研究收錄標準是否有明確的界定？

A - Were the criteria used to select articles for inclusion appropriate?

<p>What is best?</p> <p>The inclusion or exclusion of studies in a systematic review should be clearly defined a priori. The eligibility criteria used should specify the patients, interventions or exposures and outcomes of interest. In many cases the type of study design will also be a key component of the eligibility criteria.</p>	<p>Where do I find the information?</p> <p>The Methods section should describe in detail the inclusion and exclusion criteria. Normally, this will include the study design.</p>
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This paper: Yes No Unclear

Comment:

3-1. 研究收錄標準是否有明確的界定？ →YES

▶ Inclusion ▶ Exclusion

Study selection
 Prospective randomized clinical trials (RCTs) comparing the clinical effects of CAG to those of IAT were included. The studies involving post-stroke hemiplegic patients who were diagnosed clinically and/or by brain computed tomography (CT) scan or brain magnetic resonance imaging (MRI) involving patients with cerebral infarction, intracerebral hemorrhage, cerebral aneurysm, or subarachnoid hemorrhage, were included. To be included, acupuncture treatment on the affected side should be compared with that on the unaffected side.

Trials where conventional treatment were given were also included if they were given to both acupuncture and control groups. No language restrictions were imposed on study selection, and dissertations and abstracts were included provided they contained sufficient detail.

Excluded after reading the full text (n=111)
 Reasons:
 • Classic report (n=5)
 • UKO (n=9)
 • CCT (n=3)
 • RCT but employing CAG with other treatment or not comparing with IAT (n=2)
 • In vitro studies (n=3)
 • In vivo studies (n=5)
 • Review (n=2)
 • Not related to CAG (n=14)
 • Not post-stroke hemiplegic subjects (n=9)
 • Outcome not related to stroke (n=9)

3-2.關於研究族群、涉入治療、比較分組及結果評估是否適切?

First author (Year)	Sample Size (Number/ Diagnosis)	Design	Main outcomes	Intergroup difference	CT group	AP group	Concomitance for both groups	Risk of bias
Kim 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Lee 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low

● no Subgroup analysis for each prognostic factor
● Outcomes measure using ambiguous scales despite the published or validated measurement scales.

First author (Year)	Sample Size (Number/ Diagnosis)	Design	Main outcomes	Intergroup difference	CT group	AP group	Concomitance for both groups	Risk of bias
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low

None of the trials conducted a follow-up assessment after treatment or reported adverse events or patient acceptance of acupuncture.

First author (Year)	Sample Size (Number/ Diagnosis)	Design	Main outcomes	Intergroup difference	CT group	AP group	Concomitance for both groups	Risk of bias
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low
Chen 2010	100 CT scan n=50	CT scan	Response rate	100% vs 100%	100% (100/100)	100% (100/100)	None	Low

4.所收錄的研究是否是有效力(valid)的研究(randomization, blinding and completeness of follow-up)?

A - Were the included studies sufficiently valid for the type of question asked?

What is best? The article should describe how the quality of each study was assessed using predetermined quality criteria appropriate to the type of clinical question (e.g., randomization, blinding and completeness of follow-up).

Where do I find the information? The Methods section should describe the assessment of quality and the criteria used. The Results section should provide information on the quality of the individual studies.

This paper: Yes No Unclear

Comment:

- ▶ 研究族群
 - 8 RCTs (7 in China, 1 in Korea), 534 patients
 - infarction or hemorrhage diagnosis by CT and MRI
- ▶ 涉入治療
- ▶ 比較分組
- ▶ 結果評估
 - Response rate, FMA, ADL, VAS

4.所收錄的研究是否是有效力(valid)的研究?

Data extraction, quality control, and assessment of the risk of bias

All articles were read by two independent reviewers (MKR, TTC) who extracted data from each article according to predefined criteria. The risk of bias was assessed using the assessment tool [2] of bias' from the **Cochrane Handbook for Systematic Reviews of Interventions** [12]. The following characteristics were assessed: (1) Was the allocation sequence adequately generated? (2) Was allocation adequately concealed? (3) Was knowledge of the allocated interventions adequately prevented during the study? (4) Were incomplete outcome data adequately addressed? (5) Are reports of the study free of suggestion of selective outcome reporting? (6) Was the study free of other problems that could put it at a risk of bias? Our review used 'Y', 'U', 'N' in lieu of the judgements; the answer 'Yes' indicated a low risk of bias ('Y'), 'Unclear' indicated that a risk of bias is uncertain ('U'), and the answer 'No' indicated a high risk of bias ('N').

Patient blinding was assessed when the control intervention was indistinguishable from acupuncture, even if the word 'blinding' was not used in the report. Given that it is virtually impossible to blind therapists to the types of acupuncture, we assessed patient and assessor blinding separately. Disagreements were resolved by discussion between the two reviewers (MSL, HE). There was no disagreement between the two reviewers about the results.

4. 所收錄的研究是否是有效力(valid)的研究(randomization, blinding and completeness of follow-up)?

First author (Year)	Sample Size	Group	Risk score	Interrater agreement	CAT group	MT group	Concomitant for both groups	Risk of bias
Chan 2007	33	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Huang 2006a	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Huang 2006b	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Huang 2009	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2005	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2007	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2008	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2009	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2010	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2011	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2012	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2013	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2014	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low
Lin 2015	30	ON CAT	5	0.88 (2.3)	YES (14)	YES (14)	None	Low

Risk of Bias

- (1) Was the allocation sequence adequately generated?
- (2) Was allocation adequately concealed?
- (3) Was knowledge of the allocated interventions adequately prevented during the study (both to patient and outcome assessor)?
- (4) Were incomplete outcome data adequately addressed?
- (5) Are reports of the study free of suggestion of selective outcome reporting?
- (6) Was the study apparently free of other problems that could put it at a risk of bias?

→ High risk of bias

5. 如果有 meta-analysis, 所收錄的研究是否有足夠的一致性以產生合併的資料?

What were the results?
How are the results presented?

A systematic review provides a summary of the data from the results of a number of individual studies. If the results of the individual studies are similar, a statistical method (called meta-analysis) is used to combine the results from the individual studies and an overall summary estimate is calculated. The meta-analysis gives weighted values to each of the individual studies according to their size. The individual results of the studies need to be expressed in a standard way, such as relative risk, odds ratio or mean difference between the groups. Results are traditionally displayed in a figure, like the one below, called a **forest plot**.

5. 如果有 meta-analysis, 所收錄的研究是否有足夠的一致性以產生合併的資料?

(A) Response rate

Study or Subgroup	Events, n/N	Total, n/N	Risk Ratio, M-H, Random, 95% CI	Risk Ratio, M-H, Random, 95% CI
Chan 2007	30 / 34	28 / 31	1.21 (0.85, 1.71)	
Lin 2005	28 / 30	27 / 30	1.17 (0.85, 1.60)	
Lin 2007	28 / 28	28 / 31	1.16 (0.85, 1.58)	
Lin 2008	28 / 30	28 / 31	1.16 (0.85, 1.58)	
Lin 2009	28 / 30	28 / 31	1.16 (0.85, 1.58)	
Subtotal (95% CI)	152	158	1.12 (0.86, 1.47)	
Total events	152	158		
Heterogeneity: Tau ² = 0.00; I ² = 0.0%; H ² = 1.0; P = 0.94				
Test for overall effect: Z = 5.71 (P < 0.0001)				

(B) Activities of Daily Living

Study or Subgroup	Mean, SD	Total, Mean, SD	Mean Difference, IV, Random, 95% CI	Mean Difference, IV, Random, 95% CI
Chan 2007	10.7	10.7	-0.14 (-0.21, 0.06)	
Huang 2006a	14	14	-0.07 (-0.18, 0.04)	
Huang 2006b	15.81	15.13	0.34 (0.18, 0.51)	
Huang 2009	15.07	15.13	0.33 (0.18, 0.51)	
Total (95% CI)	97	98	0.11 (-0.20, 0.34)	
Heterogeneity: Tau ² = 0.00; I ² = 4.9%; H ² = 1.3; P = 0.25				
Test for overall effect: Z = 3.90 (P = 0.05)				

(C) Neurological Deficit Score

Study or Subgroup	Mean, SD	Total, Mean, SD	Mean Difference, IV, Random, 95% CI	Mean Difference, IV, Random, 95% CI
Chan 2007	7.96	8.29	-0.67 (-0.72, -0.62)	
Lin 2005	12.57	12.57	0.89 (0.43, 1.35)	
Total (95% CI)	63	63	0.23 (-0.13, 0.57)	
Heterogeneity: Tau ² = 4.38; I ² = 2.18; H ² = 1.1; P = 0.31				
Test for overall effect: Z = 1.23 (P = 0.22)				

(D) Motor function

Study or Subgroup	Mean, SD	Total, Mean, SD	Mean Difference, IV, Random, 95% CI	Mean Difference, IV, Random, 95% CI
Huang 2006a	12.37	8.83	3.54 (3.27, 3.81)	
Huang 2006b	12.89	11.18	1.71 (1.43, 1.99)	
Huang 2009	12.9	12.8	0.1 (0.14, 0.31)	
Lin 2005	11.21	7.74	3.47 (3.14, 3.80)	
Total (95% CI)	138	138	0.78 (0.34, 1.22)	
Heterogeneity: Tau ² = 0.00; I ² = 0.0%; H ² = 1.0; P = 0.94				
Test for overall effect: Z = 1.87 (P = 0.06)				

Legend:

I ² = 0	perfect homogenous
I ² = 0 - 25%	low heterogeneity
I ² = 25% - 50%	moderate heterogeneity
I ² > 50%	high heterogeneity

Significance Table:

Z	P	Significance
≥2.58	≤0.01	非常顯著
≥1.96	≤0.05	顯著
<1.96	>0.05	不顯著

→ 顯著差異且同質性高

(B) Activities of Daily Living

(C) Neurological Deficit Score

Legend:

I ² = 0	perfect homogenous
I ² = 0 - 25%	low heterogeneity
I ² = 25% - 50%	moderate heterogeneity
I ² > 50%	high heterogeneity

Significance Table:

Z	P	Significance
≥2.58	≤0.01	非常顯著
≥1.96	≤0.05	顯著
<1.96	>0.05	不顯著

→ 無顯著差異 中~高度異質性

(D) Motor function

Study or Subgroup	Mean, SD	Total, Mean, SD	Mean Difference, IV, Random, 95% CI	Mean Difference, IV, Random, 95% CI
Huang 2006a	12.37	8.83	3.54 (3.27, 3.81)	
Huang 2006b	12.89	11.18	1.71 (1.43, 1.99)	
Huang 2009	12.9	12.8	0.1 (0.14, 0.31)	
Lin 2005	11.21	7.74	3.47 (3.14, 3.80)	
Total (95% CI)	138	138	0.78 (0.34, 1.22)	
Heterogeneity: Tau ² = 0.00; I ² = 0.0%; H ² = 1.0; P = 0.94				
Test for overall effect: Z = 1.87 (P = 0.06)				

Legend:

I ² = 0	perfect homogenous
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Significance Table:

Z	P	Significance
≥2.58	≤0.01	非常顯著
≥1.96	≤0.05	顯著
<1.96	>0.05	不顯著

→ 無顯著差異, 高度異質性

Practicability

- 我們的病人是否與研究中差異很大?
- 同樣為影像學確診為中風導致偏癱之患者
- 但此篇回顧僅包含中國大陸及韓國之研究

▶ 此治療在目前是否可行?

- 可行
- 但目前大多數醫師雙側穴位皆會選用，少單取健側

▶ 我們的病人是否可從該項治療中獲益?

- 此篇研究結果中，「對側針灸治療組」比「同側針灸治療組」在 **response rate** 有明顯改善，但由於所收錄的研究偏差風險高，因此仍難以下定論。

▶ 我們的病人如何看待此次治療結果?

- 可參考

Audit

▶ 中風患者充滿疑惑地詢問：「請問為何健康的手腳也要針灸？針在健側與患側的差異為何？」

- ▶ 醫師：「中國幾千年前就提出「針灸健側來治療患側」的方式。整合幾篇大陸和韓國期刊指出，對側針灸比同側針灸在「中風後遺症改善速度」有明顯改善，因此臨床也可嘗試針灸健側。」