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Aphasie : évaluation de l'acupuncture

1. Revues systématiques et méta-analyses

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<td>Preuves en faveur d’une efficacité et d’un effet spécifique de l’acupuncture</td>
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1.1. Acupuncture générique

1.1.1. Xie 2020 (acupuncture plus rééducation)


**Background**
The evidence of Acupuncture combined with speech rehabilitation training for post-stroke dysarthria is insufficient and there is no consensus on its efficacy.

**Methods**
We searched seven Chinese and English medicine databases for randomized controlled trials (RCTs) from their inception to November 2019. The primary outcome measure was the clinical response rate, assessed with the Frenchay Dysarthria Assessment (FDA) tool. We assessed risk of bias using the Cochrane risk-of-bias tool. We used GRADE to assess the certainty of evidence (CoE).

**Results**
Thirty studies were included in this systematic review, 23 of which were pooled in meta-analysis. Acupuncture combined with speech rehabilitation training is likely beneficial for was response rate (n = 1685; RR = 1.37; 95% CI [1.29, 1.46], P < 0.01, I² = 34%; 17 studies, low CoE) compared to speech rehabilitation treatment alone.

**Conclusion**
The combination of acupuncture and speech rehabilitation training may improve total response rate of stroke patients with dysarthria. However, more RCTs with rigorous study design and validated outcome measures are needed to confirm the evidence.

1.1.2. Tang 2019


**Background**
Aim of this study was to evaluate the effectiveness of scalp, tongue, and Jin's 3-needle acupuncture for the improvement of postapoplectic aphasia.

**Method**
PubMed, Cochrane, Embase databases were searched using index words to identify qualifying randomized controlled trials (RCTs). Meta-analyses of odds ratios (OR) or standardized mean differences (SMD) were performed to evaluate the outcomes between investigational (scalp / tongue / Jin's 3-needle acupuncture) and control (traditional acupuncture; TA and/or rehabilitation training; RT) groups.
**Results**

Thirty-two RCTs (1310 participants in investigational group and 1270 in control group) were included. Compared to TA, (OR 3.05 [95% CI: 1.77, 5.28]; p=0.00001), tongue acupuncture (OR 3.49 [1.99, 6.11]; p<0.00001), and Jin’s 3-needle therapy (OR 2.47 [1.10, 5.53]; p = 0.03) had significantly better total effective rate. Compared to RT, scalp acupuncture (OR 4.24 [95% CI: 1.68, 10.74]; p = 0.002) and scalp acupuncture with tongue acupuncture (OR 7.36 [3.33, 16.23]; p<0.00001) had significantly better total effective rate. In comparison with TA/RT, scalp acupuncture, tongue acupuncture, scalp acupuncture with tongue acupuncture, and Jin’s three-needling significantly improved ABC, oral expression, comprehension, writing and reading scores.

**Conclusion**

As treatments to postapoplectic aphasia, scalp / tongue acupuncture and Jin's Three-needling are found better than TA and/or RT in yielding total effective rate and improving ABC, oral expression, comprehension, reading and writing scores.

### 1.1.3. Zhang 2019


**Objective**

In this meta-analysis the authors evaluated the effectiveness of acupuncture in improving functional communication and language function in post-stroke aphasia (PSA) patients.

**Methods**

Data sources: MEDLINE, EMBASE, CENTRAL, AMED, Sinomed, CNKI, VIP, and Wanfang databases, ICTRP, ISRCTN, EUCR, ClinicalTrials.gov, and Stroke Trials Registries. A search was carried out for randomized controlled trials (RCTs) investigating the effects of acupuncture compared with no treatment or placebo acupuncture on post-stroke aphasia (PSA). The searched records were independently screened by two authors, who extracted the data, and assessed risk of bias of the included RCTs. Data aggregation and risk of bias evaluation were conducted on Review Manager Version 5.3. The protocol was registered in the PROSPERO database (CRD42016037543).

**Results**

A total of 28 RCTs involving 1747 patients (883 patients in the treatment group and 864 patients in the control group) were included in the quantitative synthesis. The results demonstrated significant effects of acupuncture in improving PSA functional communication (P < 0.00001, standardized mean difference (SMD) = 1.01 [0.81, 1.20]), severity of impairment (P < 0.0001, SMD = 0.64 [0.45, 0.84]), spontaneous speech (P = 0.0002, SMD = 1.51 [0.71, 2.32]), auditory comprehension (P < 0.0001, SMD = 0.84 [0.43, 1.26]), repetition (P < 0.00001, SMD = 1.13 [0.75, 1.52]), naming (P = 0.03, SMD = 0.65 [0.08, 1.23]), reading (P < 0.0001, SMD = 1.56 [0.83, 2.29]), and writing (P = 0.009, SMD = 1.03 [0.25, 1.80]).

**Conclusion**

Acupuncture seems to be effective in improving PSA functional communication and language function.

### 1.1.4. Zhu 2018 §


**Objective**

The aim of this study is to comprehensively evaluate the clinical efficacy of acupuncture combined with speech rehabilitation for aphasia after stroke.
### Methods

We performed online searches of the CNKI, Wanfang, CBM, VIP, Pubmed in November 2017 to find studies of being combined with speech rehabilitation for aphasia after stroke. Review Manager 5.3 was used to perform the meta-analysis.

### Results

A total of **12 trials involving 1091 patients** were included. Among them, 11 trials were evaluated with effective rate, and the clinical effective rate of experimental group increased significantly compared with the control group, from 77.84% (397/510) to 92.56% (473/511) (P < 0.01). 12 trials’ effect size of aphasia battery in Chinese score was WMD = 33.78, 95% CI (22.58, 44.99), Z = 5.91 (P < 0.00001), and the difference was statistically significant. Acupuncture combined with speech rehabilitation has significant difference in improving comprehension ability [WMD = 4.07, 95% CI (1.41, 6.74), Z = 3.00 (P = 0.003)], retelling ability [WMD = 10.17, 95% CI (9.32, 11.01), Z = 23.55 (P < 0.00001)], reading ability [WMD = 10.78, 95% CI (6.55, 15.01), Z = 5.00 (P < 0.00001)] and writing ability [WMD = 5.66, 95% CI (4.95, 6.37), Z = 15.58 (P < 0.00001)] of stroke patients compared with control group.

### Conclusion

Current RCTs clinical evidence indicated that acupuncture combined with speech rehabilitation better than speech rehabilitation without acupuncture.

1.1.5. Mitchell 2017 Ø


### Background

Dysarthria is an acquired speech disorder following neurological injury that reduces intelligibility of speech due to weak, imprecise, slow and/or unco-ordinated muscle control. The impact of dysarthria goes beyond communication and affects psychosocial functioning. This is an update of a review previously published in 2005. The scope has been broadened to include additional interventions, and the title amended accordingly.

### Objectives

To assess the effects of interventions to improve dysarthric speech following stroke and other non-progressive adult-acquired brain injury such as trauma, infection, tumour and surgery.

### Methods

Search methods: We searched the Cochrane Stroke Group Trials Register (May 2016), CENTRAL (Cochrane Library 2016, Issue 4), MEDLINE, Embase, and CINAHL on 6 May 2016. We also searched Linguistics and Language Behavioral Abstracts (LLBA) (1976 to November 2016) and PsycINFO (1800 to September 2016). To identify further published, unpublished and ongoing trials, we searched major trials registers: WHO ICTRP, the ISRCTN registry, and ClinicalTrials.gov. We also handsearched the reference lists of relevant articles and contacted academic institutions and other researchers regarding other published, unpublished or ongoing trials. We did not impose any language restrictions. Selection CRITERIA: We selected randomised controlled trials (RCTs) comparing dysarthria interventions with 1) no intervention, 2) another intervention for dysarthria (this intervention may differ in methodology, timing of delivery, duration, frequency or theory), or 3) an attention control. data collection and analysis: Three review authors selected trials for inclusion, extracted data, and assessed risk of bias. We attempted to contact study authors for clarification and missing data as required. We calculated standardised mean difference (SMD) and 95% confidence interval (CI), using a random-effects model, and performed sensitivity analyses to assess the influence of methodological quality. We planned to conduct subgroup analyses for underlying clinical conditions.
Main Results

We included five small trials that randomised a total of 234 participants. Two studies were assessed as low risk of bias; none of the included studies were adequately powered. Two studies used an attention control and three studies compared to an alternative intervention, which in all cases was one intervention versus usual care intervention. The searches we carried out did not find any trials comparing an intervention with no intervention. The searches did not find any trials of an intervention that compared variations in timing, dose, or intensity of treatment using the same intervention. Four studies included only people with stroke; one included mostly people with stroke, but also those with brain injury. Three studies delivered interventions in the first few months after stroke; two recruited people with chronic dysarthria. Three studies evaluated behavioural interventions, one investigated acupuncture and another transcranial magnetic stimulation. One study included people with dysarthria within a broader trial of people with impaired communication. Our primary analysis of a persisting (three to nine months post-intervention) effect at the activity level of measurement found no evidence in favour of dysarthria intervention compared with any control (SMD 0.18, 95% CI -0.18 to 0.55; 3 trials, 116 participants, GRADE: low quality, I² = 0%). Findings from sensitivity analysis of studies at low risk of bias were similar, with a slightly wider confidence interval and low heterogeneity (SMD 0.21, 95% CI -0.30 to 0.73, I² = 32%; 2 trials, 92 participants, GRADE: low quality). Subgroup analysis results for stroke were similar to the primary analysis because few non-stroke participants had been recruited to trials (SMD 0.16, 95% CI -0.23 to 0.54, I² = 0%; 3 trials, 106 participants, GRADE: low quality). Similar results emerged from most of the secondary analyses. There was no evidence of a persisting effect at the impairment level of measurement (SMD 0.07, 95% CI -0.91 to 1.06, I² = 70%; 2 trials, 56 participants, GRADE: very low quality) or participation level (SMD -0.11, 95% CI -0.56 to 0.33, I² = 0%; 2 trials, 79 participants, GRADE: low quality) but substantial heterogeneity on the former. Analyses of immediate post-intervention outcomes provided no evidence of any short-term benefit on activity (SMD 0.29, 95% CI -0.07 to 0.66, I² = 0%; 3 trials, 117 participants, GRADE: very low quality); or participation (SMD -0.24, 95% CI -0.94 to 0.45; 1 study, 32 participants) levels of measurement. There was a statistically significant effect favouring intervention at the immediate, impairment level of measurement (SMD 0.47, 95% CI 0.02 to 0.92, P = 0.04, I² = 0%; 4 trials, 99 participants, GRADE: very low quality) but only one of these four trials had a low risk of bias.

Authors’ Conclusions

We found no definitive, adequately powered RCTs of interventions for people with dysarthria. We found limited evidence to suggest there may be an immediate beneficial effect on impairment level measures; more, higher quality research is needed to confirm this finding. Although we evaluated five studies, the benefits and risks of interventions remain unknown and the emerging evidence justifies the need for adequately powered clinical trials into this condition. People with dysarthria after stroke or brain injury should continue to receive rehabilitation according to clinical guidelines.

1.1.6. Tan 2016 ☆☆


Objectives

With the Meta-analysis method, the clinical efficacy of acupuncture and other regular methods for aphasia was evaluated, and the acupoints selection for aphasia was explored.
**Methods**
The acupuncture literature of clinical randomized control trials for aphasia published in CNKI, WANFANG, VIP and CBM database was searched; the statistical analysis of clinical efficacy of acupuncture and other regular methods for aphasia was performed by using software Revman 5.2 provided by Cochrane library. A file of Microsoft Excel was established to perform the analysis of acupoints selection based on frequency analysis method, so as to summarize the characteristics and rules.

**Results**
Totally 385 articles were searched, and 37 articles those met the inclusive criteria was included, involving 1,260 patients in the acupuncture group and 1,238 patients in the control group. The Meta-analysis results showed OR = 3.82, 95% CI [3.01, 4.85]; rhombus was located on the right side and the funnel plot was nearly symmetry, indicating the treatment effect of the acupuncture group for aphasia was superior to the control group \((Z = 11.04, P < 0.000 01)\). The frequency-analysis results showed that the frequency of acupoints from top to bottom was Lian-quan (CV 23), Tongli (HT 5), Yamen (GV 15), Jinjin (EX-HN 12), Yuye (EX-HN 13), Baihui (GV 20), Yuyan II, Yuyan I and Yuyan III. The frequency of meridians from top to bottom was the governor vessel, extra channels, conception vessel, heart meridian and large intestine meridian.

**Conclusions**
It is concluded that the clinical efficacy of acupuncture combined with speech rehabilitation training and medication treatment for aphasia is superior to that of speech rehabilitation training and medication treatment alone. The clinical treatment for aphasia focuses on its local effect; the main acupoints are in the head and face, and the meridians are governor vessel, extra channels and conception vessel.

1.1.7. Sun 2014 ☆☆

**Objectives**
To evaluate the efficacy of treating motor aphasia with acupuncture combined with language rehabilitation systematically.

**Methods**
Literatures about treating motor aphasia with acupuncture combined with language rehabilitation were searched from CBM, CNKI, VIP, WF, Pubmed, Embase and Cochrane library, then the RCTs of treating motor aphasia with acupuncture combined with language rehabilitation were screened out and included. Two valuators extracted data and evaluated the quality according to Cochrane Review Handbook independently. The RevMan 5.1 software was used to analyze data.

**Results**
A total of 26 trials involving 1,641 cases were included. Meta-analysis results of ABC scale, BDAE scale and CRRCAE scale were \([RR=1.24, 95\% CI (1.14, 1.34)], [RR=1.36, 95\% CI (1.19, 1.54)], and [RR=1.16, 95\% CI (1.01, 1.33)]\) respectively. In the aspect of improvement of ABC and CRRCAE scores, the treatment of acupuncture combined with language rehabilitation was superior to language rehabilitation training only, and the differences were statistically significant.

**Conclusions**
In the symptom improvement and curative effect of motor aphasia, the treatment motor aphasia with acupuncture combined with language rehabilitation was superior to language rehabilitation training only.

1.1.8. Zhang 2014 ☆
Objective
To assess the therapeutic effect of acupuncture on aphasia after stroke.

Methods
Computerized methods as well as manual retrieval methods were applied to search the relevant literatures according to the method of Cochrane systematic assessment. Meta-analysis was conducted by using Review Manager 5.2 software on randomized trial (RCT) and quasi-randomized controlled clinical trials (q-RCT) which complied with the standard.

Results
15 articles and 1,163 patients with aphasia after stroke were included. According to the analysis of acupuncture group and the control group in efficiency, listening comprehension, reading skills, writing skills and other aspects, differences were statistically significant.

Conclusion
The acupuncture treatment has a good effect on aphasia after stroke. However, the quality of relevant trials is relatively low. Therefore, we still need more high-quality and large samples of RCTs to further validate.

1.1.9. Sun 2012 ☆


Objectives
Acupuncture has often been used for aphasia rehabilitation in China. The purpose of this paper was to: 1) provide a historic overview of acupuncture for aphasia due to stroke; 2) summarize the commonly used acupuncture approaches; and 3) objectively comment on the effectiveness of acupuncture for the rehabilitation of this type of disorder.

Methods
The Elsevier database and a Chinese database (CNKI) were searched through December, 2010 with the key words “aphasia, acupuncture” in English and Chinese, respectively. Case reports, uncontrolled clinical observations and controlled clinical trials were all included if acupuncture was the sole treatment or the main component of complex intervention for the rehabilitation of aphasia caused by cerebrovascular disease.

Results
More than 100 relevant articles were found. After analyzing these articles, we found that acupuncture for apoplectic aphasia most often included tongue, scalp, body and combination acupuncture. Tongue bleeding, deep insertion and strong stimulation were adopted by many practitioners. The ten most frequently used acupoints (or areas) were Lianquan (RN 23), Jinjin (EX-HN 12), Yuye (EX-HN 13), Tongli (HT 5), Fengchi (GB 20), Neiguan (PC 6), Baihui (DU 20), No. 1, 2 and 3 language sections, Sanyinjiao (SP 6) and Yamen (DU 15).

Conclusions
Controlled clinical studies and a systematic literature review demonstrate that acupuncture has therapeutic effects on aphasia after stroke.

1.1.10. Pang 2010 ☆


Objectifs
To assess the therapeutic effect of acupuncture for apoplectic aphasia.

Méthodes
A systematic review of the relevant randomized controlled trials (RCTs) of acupuncture for apoplectic aphasia was performed with Cochrane system assessment methods. The quality of researches was reviewed one by one, and data was extracted by two reviewers independently. Meta-analysis was conducted with the assistance of RevMan 5.0 software.
### Results

**Eleven randomized controlled trials (RCTs) involving 756 patients** were included. Meta-analysis indicated that there was statistical difference between acupuncture and language training groups on cured rate with \([RR = 1.74, 95\% CI (1.10, 2.74), P = 0.02]\) at the end of treatment. However, acupuncture combined language training group was statistically superior to language training group on cured rate with \([RR = 3.01, 95\% CI (1.81, 5.01), P < 0.0001]\), language function score with \([WMD = 10.54, 95\% CI (7.86, 13.21), P < 0.0001]\), oral expression with \([WMD = 8.86, 95\% CI (7.38, 10.35), P < 0.0001]\).

### Conclusions

It is approved that acupuncture (or acupuncture combined language training) is effective for apoplectic aphasia. But the quality of inclusive literature is low. Therefore, more RCTs of high methodological quality is requested to be carried out.

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1.1.1. Li 2010 ☆☆


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<tr>
<th>Objective</th>
<th>To evaluate the therapeutic effect of acupuncture for the aphasia.</th>
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<tr>
<td>Methods</td>
<td>The publications of acupuncture for the treatment of aphasia are comprehensively searched from relevant domestic medical literature databases, China National Knowledge Infrastructure and Chinese BioMedical Literature Database. Meta analysis was conducted by using the publications.</td>
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<tr>
<td>Results</td>
<td><strong>Twenty six trials</strong> of 338 matched the selection criteria and their data were suitable for Meta analysis. The total aphasia patients were <strong>1749</strong>. The total odds ratio (OR) of the improvement with acupuncture plus language training and drugs compared with language training plus drug intervention was <strong>3.66</strong> (95% confidence interval, <strong>2.81, 4.76</strong>), and the funnel plot was approximately symmetry. It is indicated that the curative effect of the acupuncture group is better than that of the control group (<strong>Z = 9.60, P &lt; 0.001</strong>)</td>
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<td>Conclusion</td>
<td>The effect of acupuncture with language training plus drugs for the treatment of aphasia is <strong>better than that of language training plus drugs only</strong>.</td>
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1.2. Techniques particulières

1.2.1. Tang 2019 (scalp, tongue, and Jin's 3-needle acupuncture)


<table>
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<th>Background</th>
<th>Aim of this study was to evaluate the effectiveness of scalp, tongue, and Jin's 3-needle acupuncture for the improvement of postapoplectic aphasia.</th>
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<tr>
<td>Method</td>
<td>PubMed, Cochrane, Embase databases were searched using index words to identify qualifying randomized controlled trials (RCTs). Meta-analyses of odds ratios (OR) or standardized mean differences (SMD) were performed to evaluate the outcomes between investigational (scalp / tongue / Jin's 3-needle acupuncture) and control (traditional acupuncture; TA and/or rehabilitation training; RT) groups.</td>
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Thirty-two RCTs (1310 participants in investigational group and 1270 in control group) were included. Compared to TA, (OR 3.05 [95% CI: 1.77, 5.28]; p<0.00001), tongue acupuncture (OR 3.49 [1.99, 6.11]; p<0.00001), and Jin's 3-needle therapy (OR 2.47 [1.10, 5.53]; p = 0.03) had significantly better total effective rate. Compared to RT, scalp acupuncture (OR 4.24 [95% CI: 1.68, 10.74]; p = 0.002) and scalp acupuncture with tongue acupuncture (OR 7.36 [3.33, 16.23]; p<0.00001) had significantly better total effective rate. In comparison with TA/RT, scalp acupuncture, tongue acupuncture, scalp acupuncture with tongue acupuncture, and Jin’s three-needling significantly improved ABC, oral expression, comprehension, writing and reading scores.

Conclusion
As treatments to postapoplectic aphasia, scalp / tongue acupuncture and Jin's Three-needling are found better than TA and/or RT in yielding total effective rate and improving ABC, oral expression, comprehension, reading and writing scores.

Articles connexes : acupuncture linguale

1.2.2. Kan 2013 (acupuncture linguale)


Objective
To assess the therapeutic effect and adverse reaction of tongue acupuncture for aphasia after stroke.

Methods
Computer retrieval of Cochrane, Mediline, CNKI, CMB, VIP databases and manual search the relevant randomized controlled trials (RCTs) or quasi-randomized controlled trials (Q-RCTs) of tongue acupuncture for aphasia after stroke. To evaluate the quality of these trials with Cochrane system assessment methods. Meta-analysis was conducted with the assistance of RevMan5.1 software.

Results
19 relevant trials, including a total of 1540 patients, 778 cases in the test group, 762 cases in the control group. Research the clinical efficacy for Meta analysis.

Conclusion
Tongue acupuncture has a certain clinical curative effect on aphasia after stroke. But the quality of relevant trials is relatively low, and there is still a need of greater samples and higher quality of RCT documentations to verify.

1.2.3. Chen 2015 (resuscitation-inducing acupuncture)


Objectives
To systematically evaluate the effectiveness and safety of resuscitation-inducing acupuncture for post-stroke dysphasia.

Methods
The randomized controlled trials (RCTs) of resuscitation-inducing acupuncture for post-stroke dysphasia were searched in the domestic and overseas databases such as CBM, CNKI, Weipu VIP, Wanfang Data, Pub Med, Web of Science, Embase and the Cochrane Library (from the founded date to December of 2014). Literature screening, information extracting and literature quality assessment were done by 2 reviewers independently. Rev Man5.3.0 software was used for Meta-analysis.
### Results

A total of **8 RCTs were included into the analysis, involving in 766 cases.** The results of Meta-analysis showed: (1) **for patients in the recovery stage of stroke,** 4-week resuscitation-inducing acupuncture combined with routine treatment including internal medicine plus swallowing function training or not had better efficiency than the control group without resuscitation-inducing acupuncture ($P<0.001$); (2) for patients in the acute stage, the difference of efficiency between the combination group and the control group was insignificant ($P=0.05$); (3) The efficiency of resuscitation-inducing acupuncture combined with routine treatment for the complication of pulmonary infection stayed uncertain.

### Conclusions

Resuscitation-inducing acupuncture combined with routine treatment is recommended to the patients with dysphasia in the recovery stage of recovery. But the cure time window, treatment course and effectiveness evaluation still need to be confirmed by more large-scale, high-quality randomized controlled trials.

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Last update: 06 Sep 2020 07:34