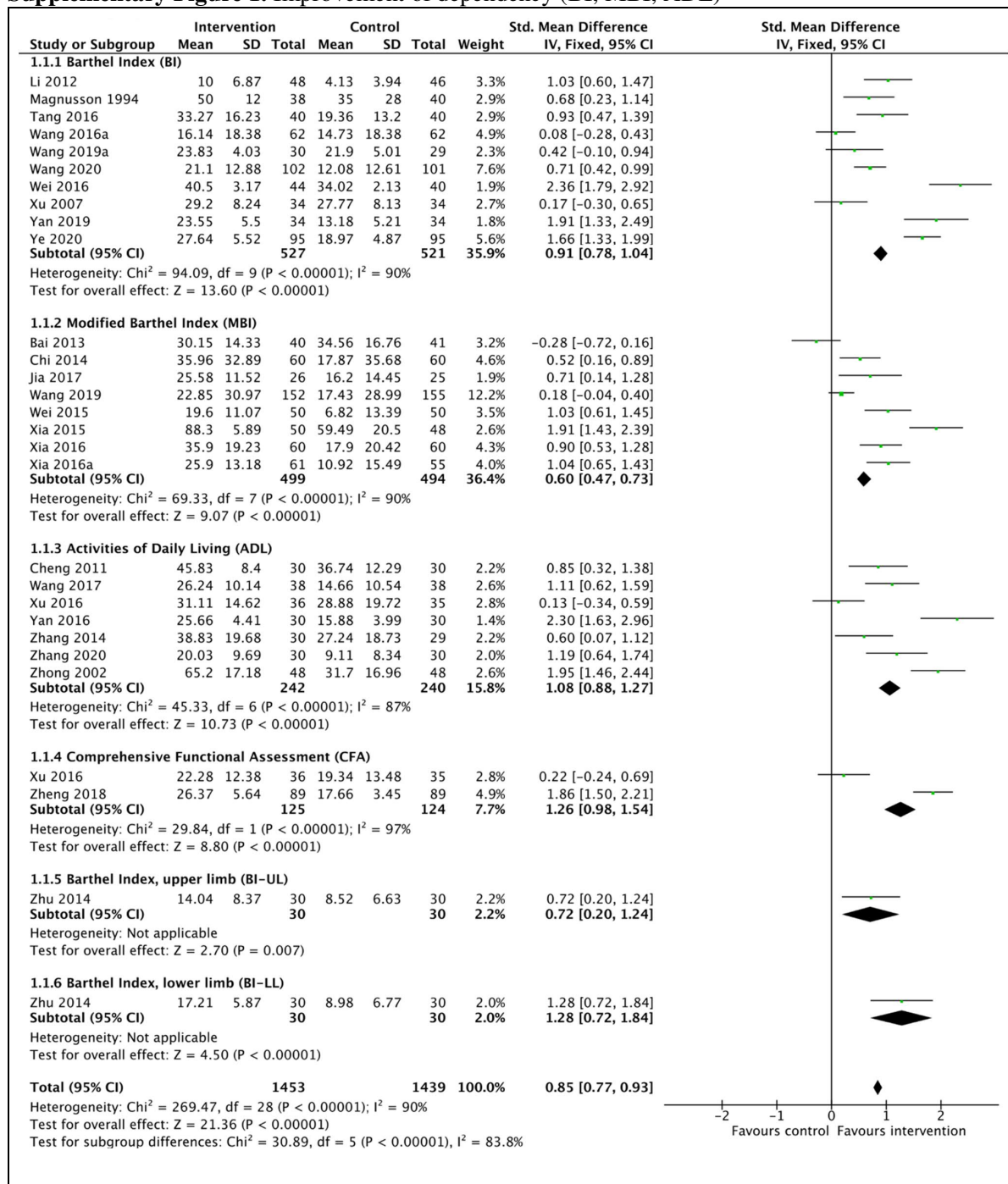# Supplementary Material

Would Integrated Western and Traditional Chinese Medicine Have More Benefits for Stroke Rehabilitation? – A Systematic Review and Meta-analysis
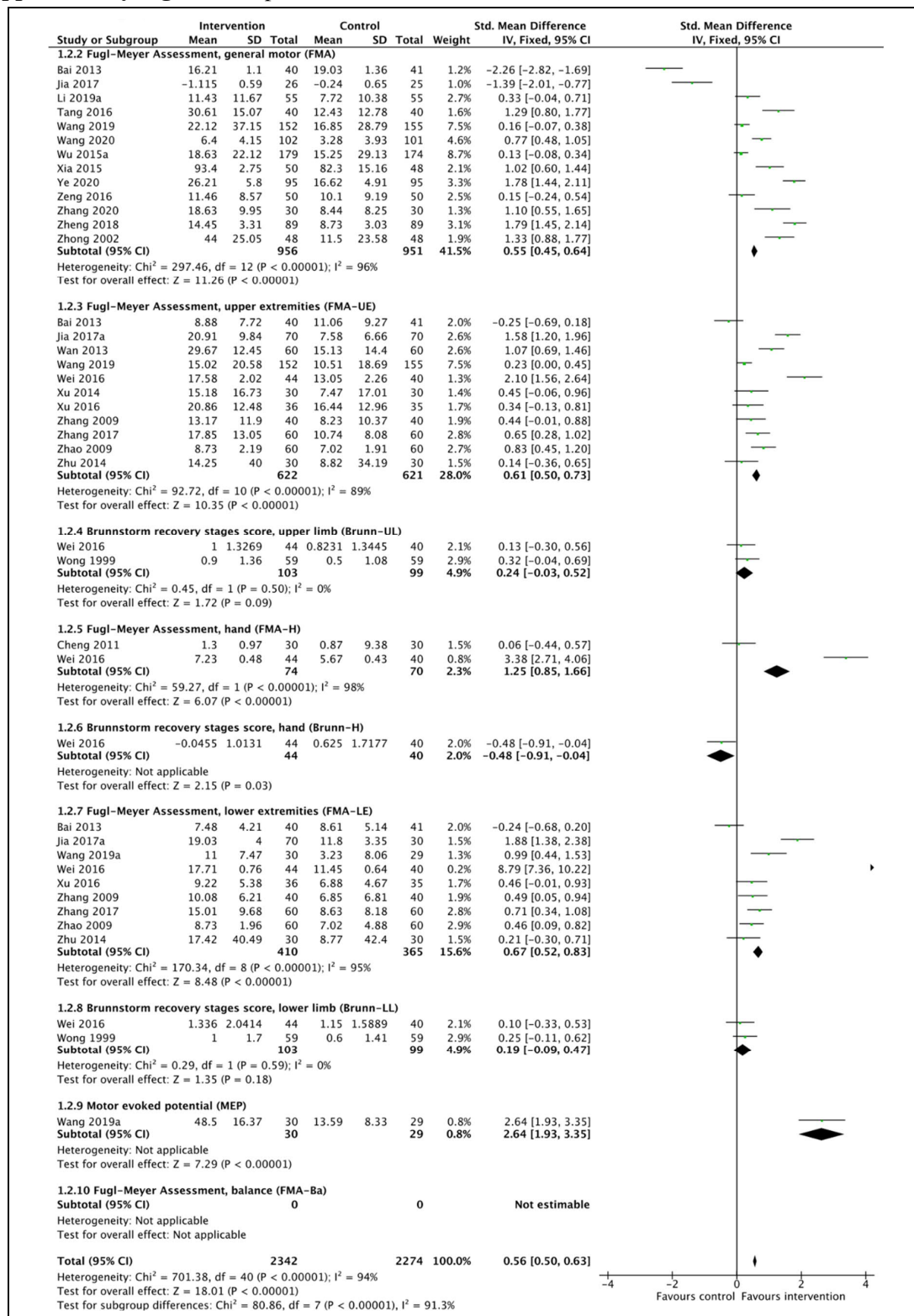
1

Supplementary Figures

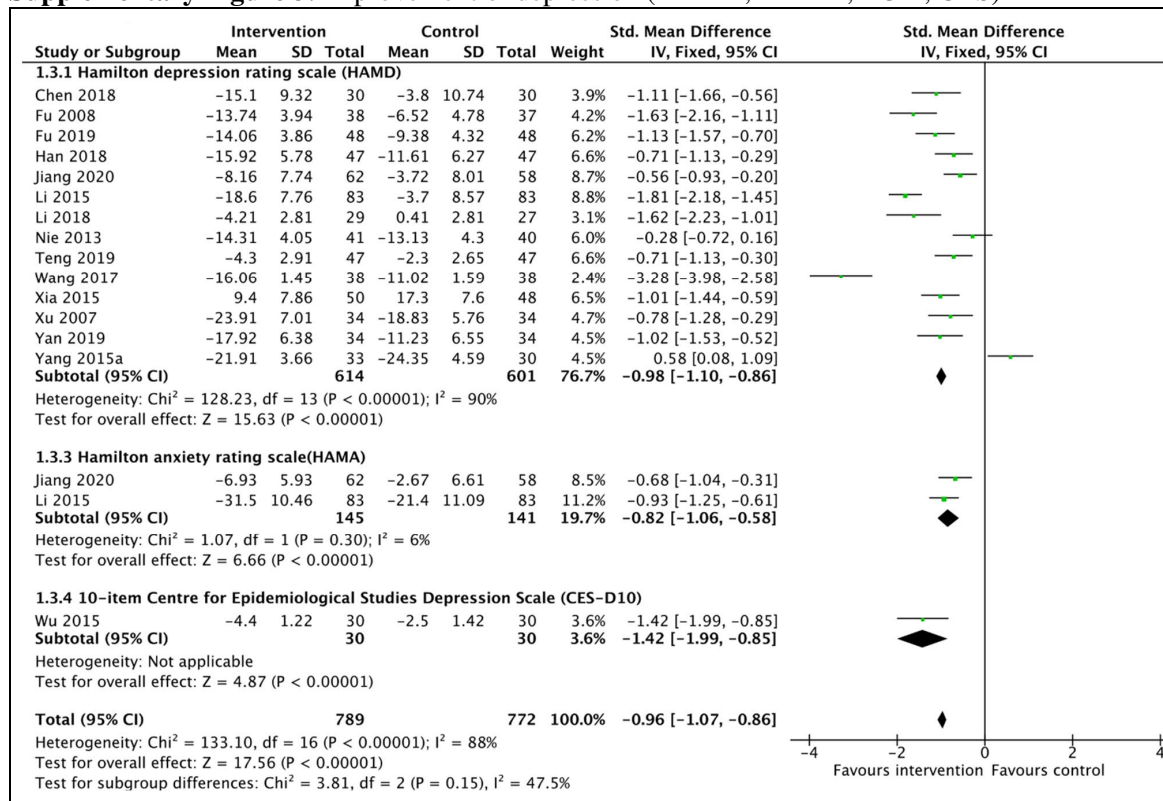**Supplementary Figure 1.** Improvement of dependency (BI, MBI, ADL)

* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplementary Figure 2. Improvement of motor function (FMA, MASc, MEP, Brunn)

* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Supplementary Figure 3. Improvement of depression (HAMA, HAMD, TCM, CES)

* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol
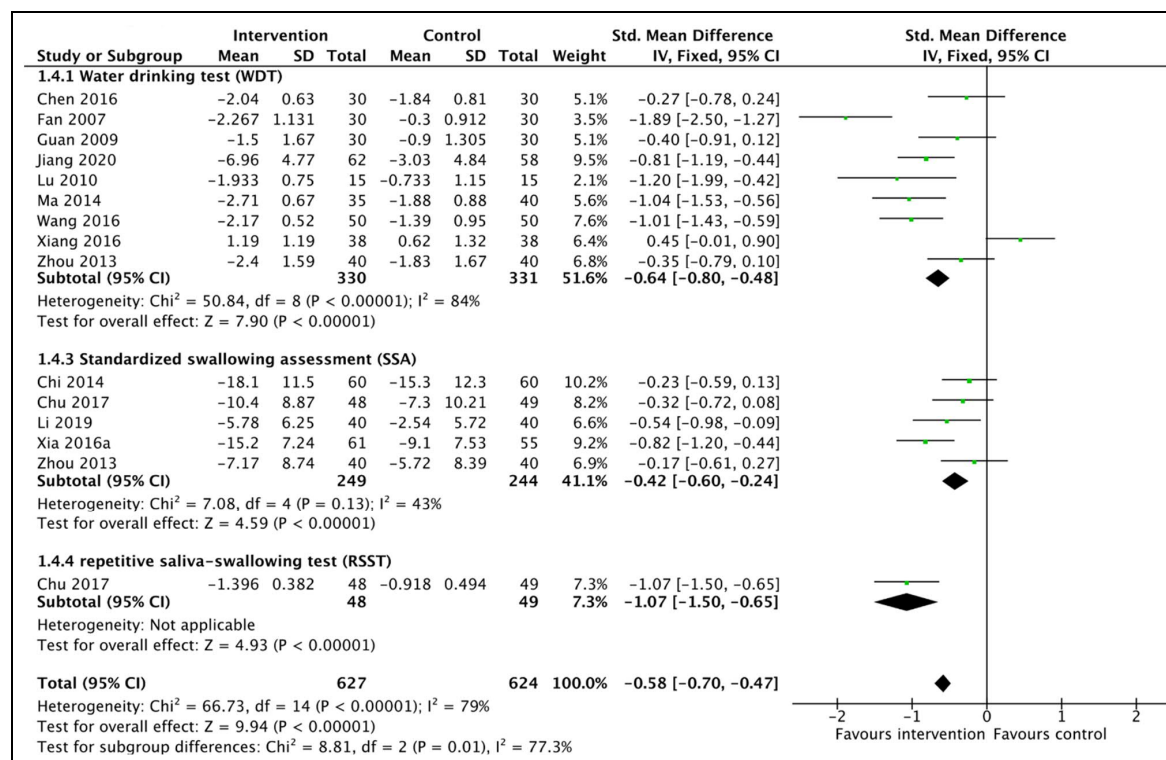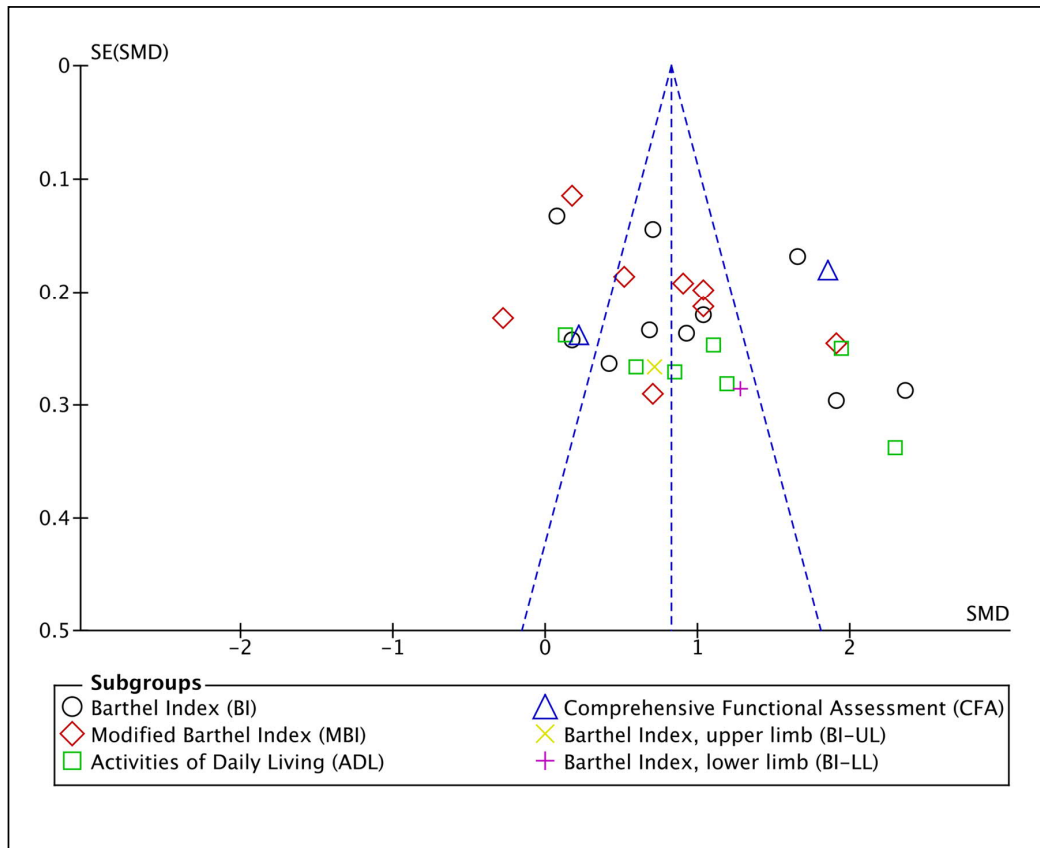
Supplementary Figure 4. Improvement of swallowing function (WDT)
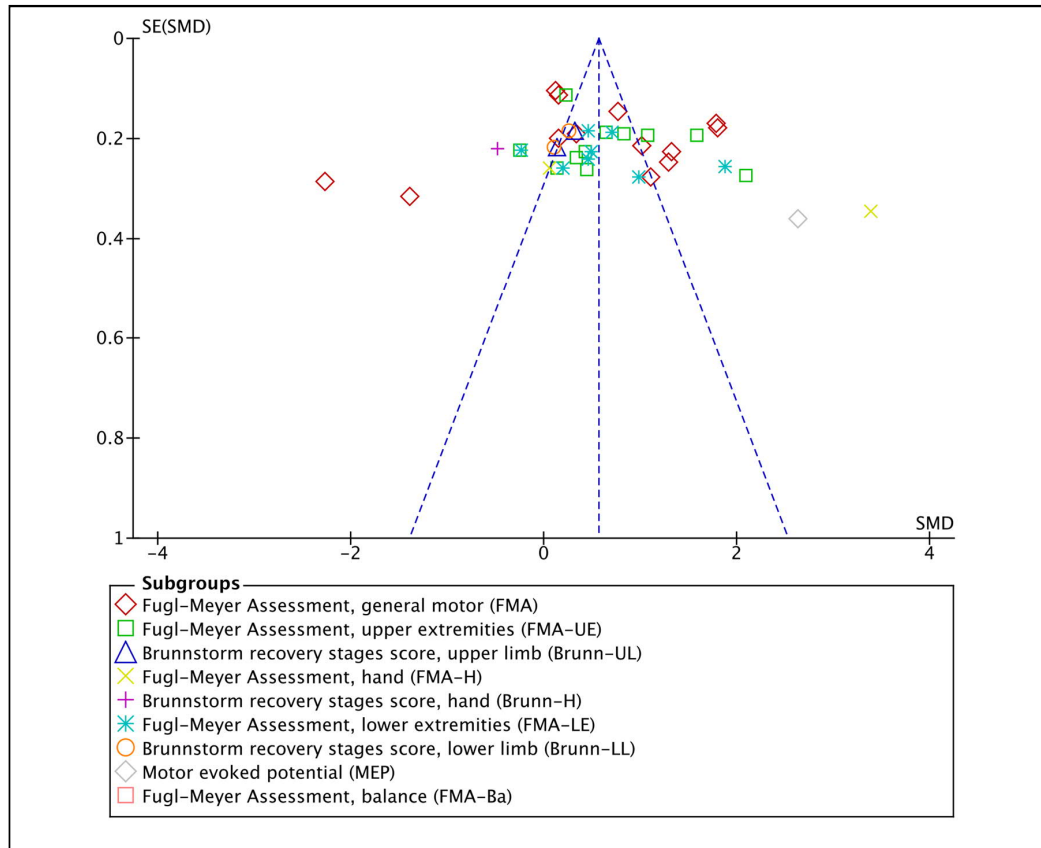

* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplementary Figure 5. Funnel plot for outcome: Improvement of dependency

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Supplementary Figure 6. Funnel plot for outcome: Improvement of motor function

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Supplementary Figure 7. Funnel plot for outcome: Improvement of depression

8

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol
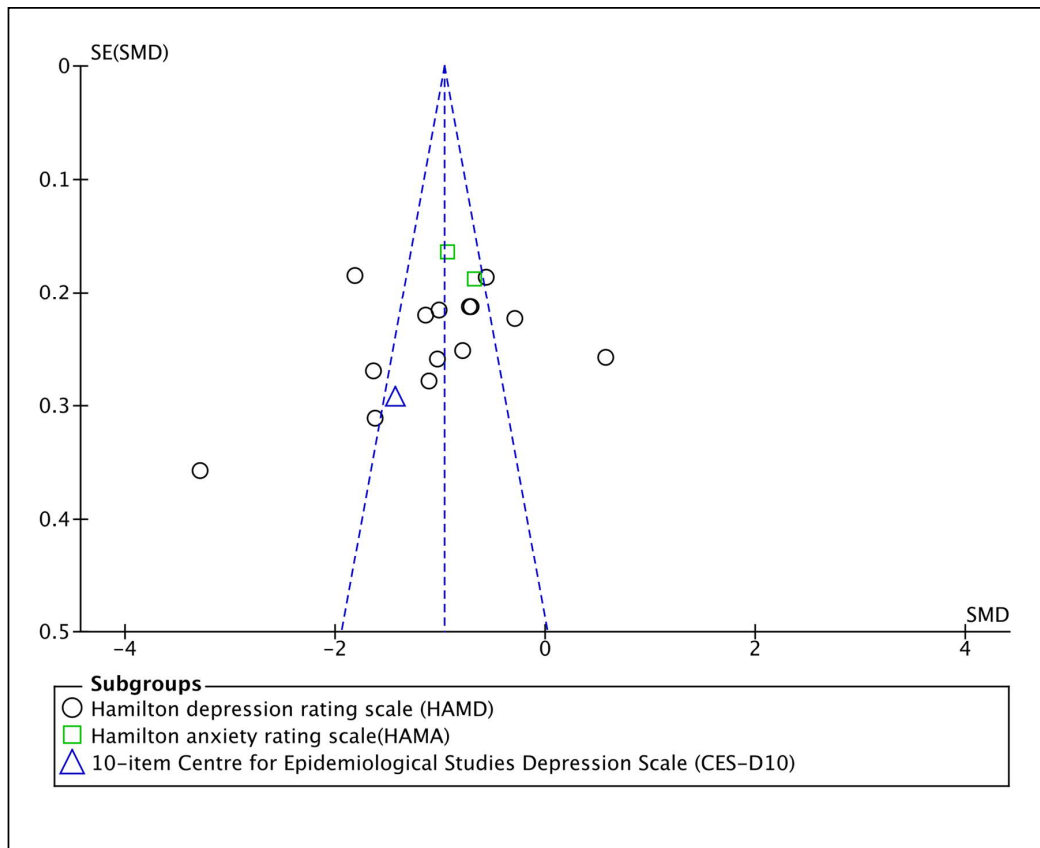
Supplementary Figure 8. Funnel plot for outcome: Improvement of swallowing function

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

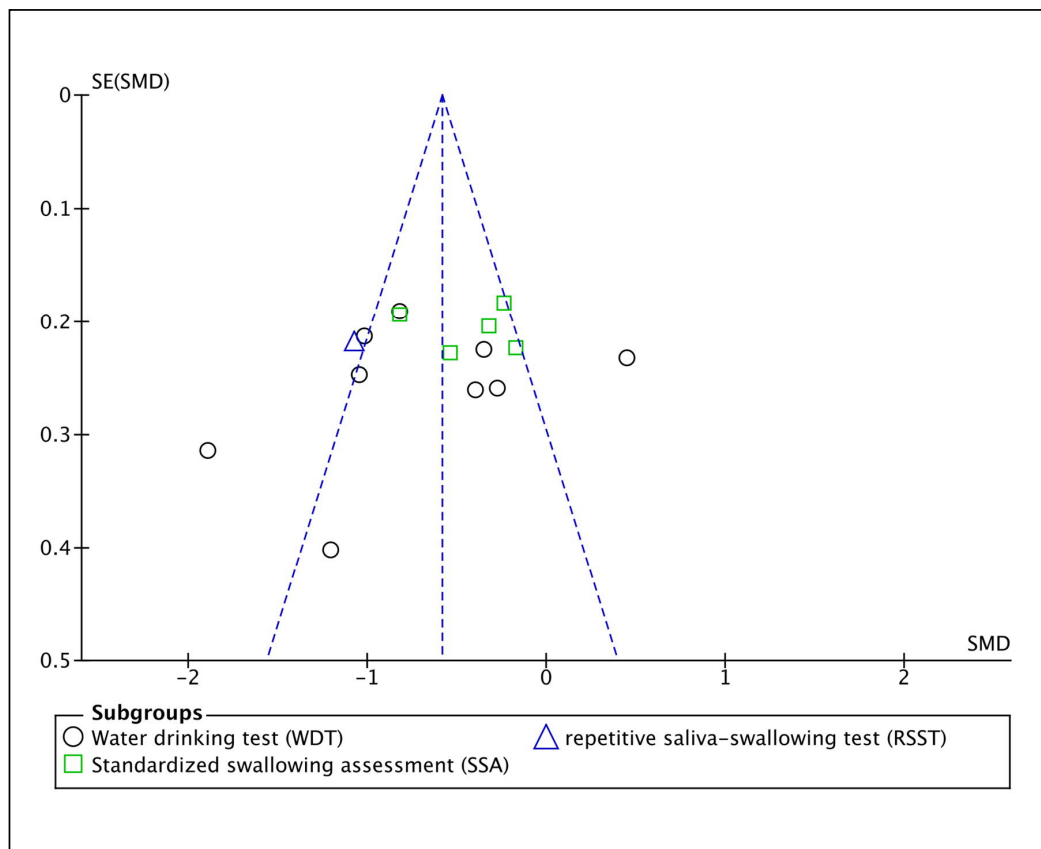**Supplementary Figure 9.** Comparison on duration of treatment: Improvement of dependency
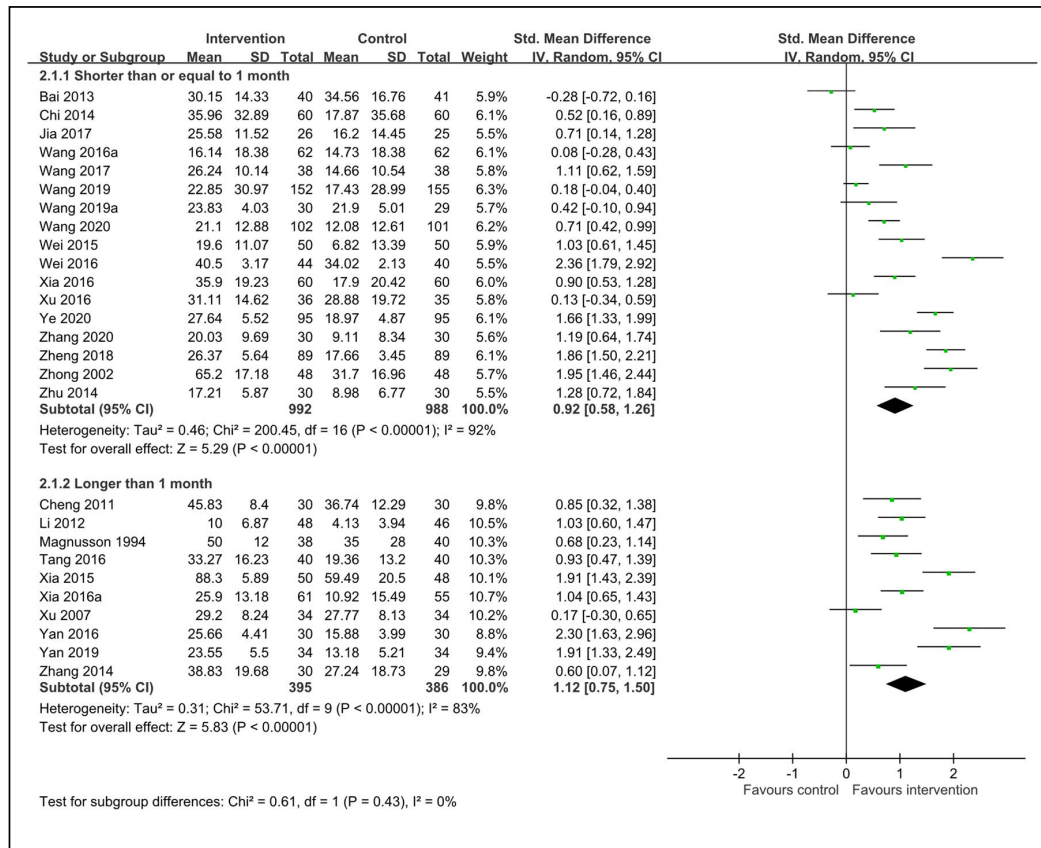
* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplementary Figure 10. Comparison on duration of treatment: Improvement of motor function
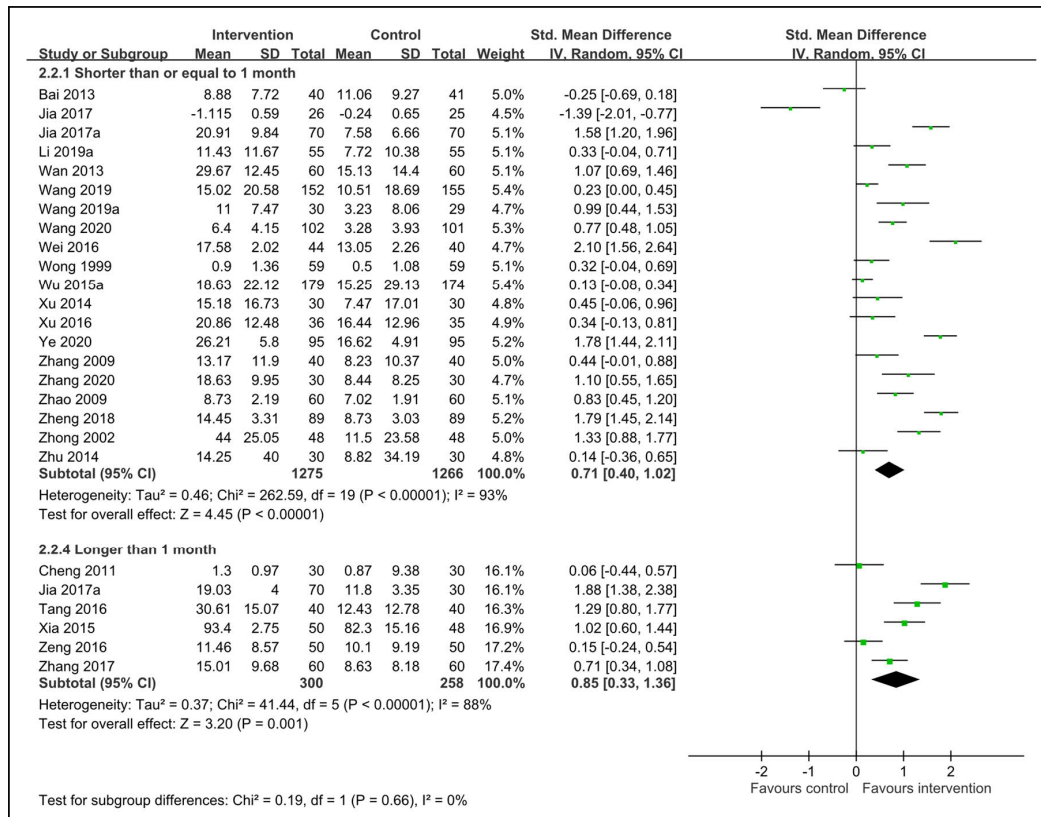
* The reference for each study have been listed in Table 2 and 'List of included studies' references'.
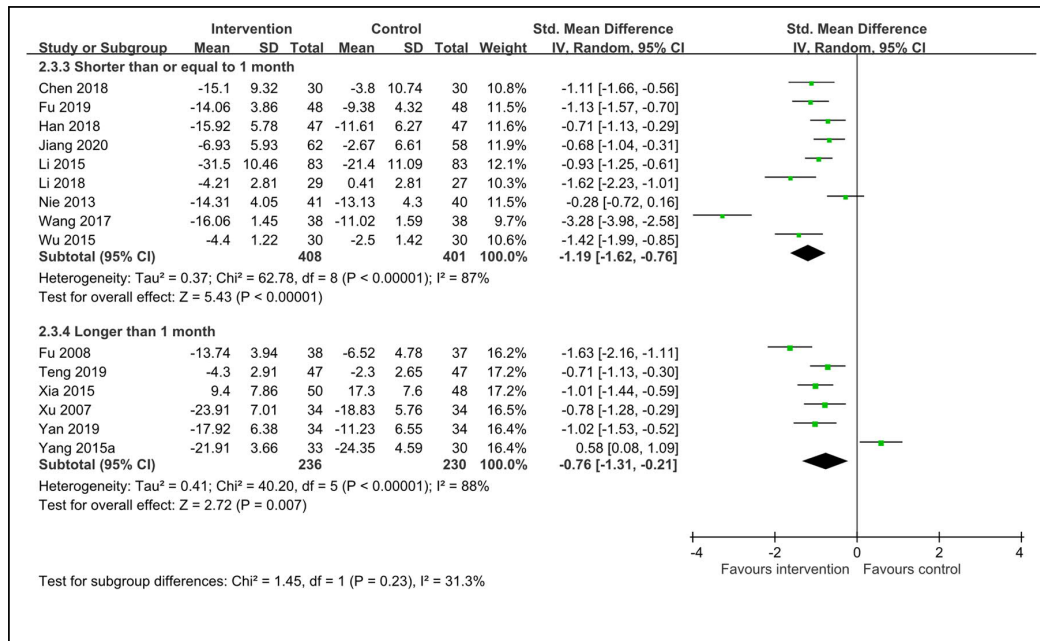
Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Supplementary Figure 11. Comparison on duration of treatment: Improvement of depression

* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

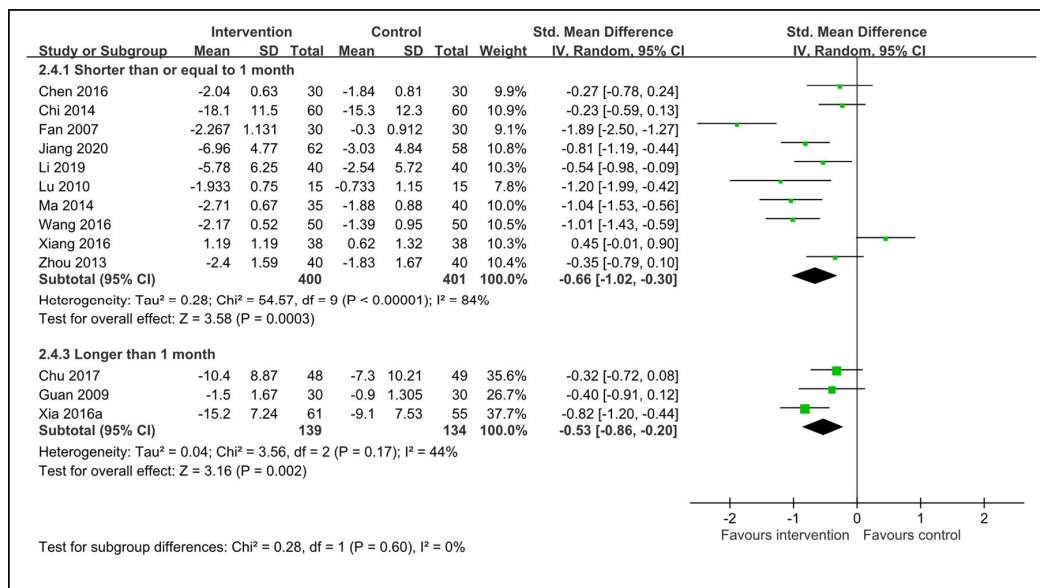**Supplementary Figure 12.** Comparison on duration of treatment: Improvement of swallowing function

* The reference for each study have been listed in Table 2 and 'List of included studies' references'.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Criteria for judging risk of bias

1. Random sequence generation (selection bias)
   - Low risk: random number table; computer random number generator;
   - High risk: date of admission; odd or even clinic record number
   - Unclear risk: randomization was stated, but the process was not described

2. Allocation concealment (selection bias)
   - Low risk: central allocation (telephone or web-based); sequentially numbered sealed envelopes; or real-time randomization
   - High risk: participants or the investigators enrolling participants could potentially predict the assignments
   - Unclear risk: method of concealment was not described or not described in sufficient detail

3. Blinding participants and personnel (performance bias)
   - Low risk: Blinding of participants and key study personnel was ensured, or it was unlikely that the blinding was compromised, blinding of participants and personnel to the hypothesis or study objectives.
   - High risk: open label; no blinding or incomplete blinding; or attempted blinding of key study participants and personnel, but it was likely that the blinding was compromised
   - Unclear risk: insufficient information to permit the judgment of 'low risk' or 'high risk'

4. Blinding of outcome assessment (detection bias)
   - Low risk: Blinding of outcome assessment was ensured. No blinding of outcome assessment, but the review authors judged that the outcome measurement was not likely to be influenced by a lack of blinding
   - High risk: open label, no blinding of outcome assessment and the outcome measurement was likely to be influenced by lack of blinding
   - Unclear risk: insufficient information to permit the judgment of 'low risk' or 'high risk'

5. Incomplete outcome data (attrition bias)
   - Low risk: intention-to-treat analysis; no missing outcome data; reasons for missing outcome data unlikely to be related to outcome; or missing outcome data were balanced across intervention groups
   - High risk: 'As-treated' analysis; reason for missing outcome data likely to be related to outcome; proportion of missing outcomes compared with observed event risk was sufficient to induce clinically relevant bias in the intervention effect estimate
   - Unclear risk: insufficient reporting of dropout and exclusion to permit the judgment of 'low risk' or 'high risk' (e.g. number randomized not stated, no reasons for missing data provided)

6. Selective reporting (reporting bias)
   - Low risk: The study protocol was available, and all of the study's prespecified outcomes that were of interest in the review were reported in a prespecified manner; or the study protocol was not available, but it was clear that the published reports include all expected outcomes, including those that were prespecified
   - High risk: Not all of the study's prespecified outcomes were reported; or one or more reported primary outcomes were not prespecified
   - Unclear risk: insufficient information for a clear decision

14

Risk of bias within studies

Supplementary Figure 13. Risk of bias graph

15

Supplementary Figure 14. Risk of bias summary

17

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Supplementary Tables

Supplementary Table 1. Search Strategy

■	MEDLINE(Ovid), 1948 to 24 Jul 2019 and EMBASE(Ovid), 1974 to 24 Jul. 2019
1	exp basal ganglia cerebrovascular disease/
2	cerebrovascular disorders/
3	exp brain ischemia/
4	exp carotid artery diseases/
5	exp cerebral small vessel diseases/
6	exp intracranial arterial diseases/
7	exp "intracranial embolism and thrombosis"/
8	exp intracranial hemorrhages/
9	stroke/
10	exp brain infarction/
11	stroke, lacunar/
12	vasospasm, intracranial/
13	vertebral artery dissection/
14	(stroke or post stroke or post-stroke).tw.
15	(cerebrovasc$ or brain vasc$ or cerebral vasc$ or cva$ or apoplex$ or SAH).tw.
16	((brain$ or cerebr$ or cerebell$ or intracran$ or intracerebral) adj5 (isch?emi$ or infarct$ or thrombo$ or emboli$ or occlus$)).tw.
17	((brain$ or cerebr$ or cerebell$ or intracerebral or intracranial or subarachnoid) adj5 (haemorrhage$ or hemorrhage$ or haematoma$ or hematoma$ or bleed$)).tw.
18	hemiplegia/
19	exp paresis/
20	(hemipleg$ or hemipar$ or paresis or paretic).tw.
21	brain injuries/
22	brain injury, chronic/
23	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22
24	acupuncture/ or acupuncture therapy/ or acupuncture analgesia/ or acupuncture, ear/ or electroacupuncture/ or meridians/ or acupuncture points/ or trigger points/

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

25	(acupuncture$ or electroacupuncture or electro-acupuncture or acupoint$ or meridians or needling).tw.
26	((meridian or non-meridian or trigger) adj10 point$).tw.
27	24 or 25 or 26
28	exp drugs, chinese herbal/
29	exp medicine, chinese traditional/
30	exp Plants, Medicinal/
31	exp Medicine, Traditional/
32	exp Plant Extracts/
33	exp Phytotherapy/
34	phytopharmaceutic$.mp.
35	herb$.mp.
36	traditional medicine$.mp.
37	traditional therap$.mp.
38	herbal medicine$.mp.
39	herbal therap$.mp.
40	aconite root.mp.
41	camelia.mp.
42	cayenne.mp.
43	chinese cucumber.mp.
44	chrysanthemum flower$.mp.
45	cocklebur fruit.mp.
46	cow dipper.mp.
47	croton seed.mp. or exp Croton/
48	ginger.mp. or exp Ginger/
49	ginkgo.mp. or exp Ginkgo biloba/
50	ginseng.mp. or exp Panax/
51	goji berry.mp.
52	horny goat weed.mp.
53	rhubarb.mp. or exp Rheum/
54	thunder vine.mp.
55	strychnine tree.mp.
56	sweet wormwood.mp.
57	willow bark.mp.
58	27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57
59	23 and 58

19

	60	(animals not (human and animals)).sh.
	61	59 not 60

■ Cochrane (Wiley interface), searched on 24 Jul 2019

1	MeSH descriptor: [Medicine, Chinese Traditional] explode all trees
2	MeSH descriptor: [Drugs, Chinese Herbal] explode all trees
3	MeSH descriptor: [Medicine, Traditional] explode all trees
4	((traditional or herbal) and (therap* or medicine*)):ti,ab,kw
5	#1 or #2 or #3 or #4
6	(acupuncture):ti,ab,kw OR (electroacupuncture):ti,ab,kw OR (meridians):ti,ab,kw OR (acupuncture*):ti,ab,kw OR (acupoints):ti,ab,kw
7	((meridian or non-meridian or trigger) adj10 point$):ti,ab,kw
8	MeSH descriptor: [Acupuncture Therapy] explode all trees
9	#6 or #7 or #8
10	#5 or #9
11	MeSH descriptor: [Stroke Rehabilitation] explode all trees
12	(stroke):ti,ab,kw
13	#11 or #12
14	#10 and #13

■ CNKI, 1915 to 24 Jul 2019

1	SU=(卒中+脑梗+心梗)*(针+中医+中药)*(随机+对照)

20

Supplementary Table 2. Characteristics of included studies (ordered by study ID)

ID	Title	Method	No. of participants	Age range	Type of health problem	Disease course	Duration of Treatment	Name of decoction and herbal medicine or acupoints	Outcomes	No. of Dropouts	Duration of follow - up	Is blind method used in outcome assessment? If yes, who is/are blinded?
Bai 2013[35]	Prospective, randomized controlled trial of physiotherapy and acupuncture on motor function and daily activities in patients with ischemic stroke	RCT	120	61.54 ±9.47	Motor function problem	15 days - 90 days	4 weeks	Baihui, Jianyu, Jianzhen, Quchi, Waiguan, Hegu, Yanglingquan, Kunlun, Juegu, Huantiao, Fengshi, Neiguan, Shangqiu, Taichong, Yinlingquan, Sanyingjiao, Yingu, Daling, Houxi, Jiquan, Chize, Quze	FMA MBI	NA	NA	NA

Chen 2018[23]	Effect of early acupuncture intervention on post - stroke depression: a randomized controlled trial	RCT	60	36 - 75	Depression	4 to 30 days	4 weeks	Baihui, Sishencong, Neiguan, Hegu, Taixi, Taichong, Zusanli, Xuehai	Clinical effective rate HAMD MESSS	NA	4 Weeks	NA
Cheng 2011[14]	Post - stroke hand dysfunction treated with acupuncture at Zhongzhu (TE 3) and Waiguan (TE 5)	Quasi-RCT	60	^ 41 - 74 * 43 - 77	Motor function problem	^ 86.6 ± 16.2 days * 88.1 ± 12.5 days	8 weeks	Waiguan, Zhongzhu	FMA - Hand NIHSS Holden ADL	NA	NA	NA
Xia 2010[36]	Combination of Feeding - Swallowing Training and Acupuncture: an Effective Rehabilitation Method for Post - Stroke Dysphagia	RCT	120	^ 65.32 ±14.85 * 66.40 ±15.63	Dysphagia	^ 8.94±3.62 days * 9.20±13.78 days	4 weeks	Yamen, Fengchi, Jingjiaji, Lianquan, Baihui, Zhaohai	SSA VFSS MBI SW - AL - QOL	NA	NA	NA
Chu 2017[34]	Effects of GAO's neck acupuncture on swallowing function and quality of life in patients with post - stroke pseudobulbar palsy:a	Quasi-RCT	100	^ 67±11 * 67±10	Dysphagia	acu: 41.1±38.6 days ctr: 40.5±30.8 days	8 weeks	Fengchi, Yiming, Gongxue, Zhiqiang, Tunyan, Fayin, Lianquan, exteriorJinjin, exteriorYuye	RSST SSA SWAL - QOL WDT	3	NA	NA

22

	randomized controlled trial											
Fan 2007[28]	Clinical Observations on Acupuncture Treatment of Post - Stroke Dysphagia	RCT	60	NA	Dysphagia	NA	NA	Tiantu, anteriorLianquan, upperLianquan, Lianquan, Fengchi, Wangu, Lieque, Fuliu, Zusanli, Fenglong	WDT Clinical effective rate	NA	NA	NA
Fu 2008[19]	Efficacy and safety of Deanxit combined with Wuling Capsule in treating post - stroke depression: a randomized controlled trial	RCT	120	45 - 78	Depression	NA	6 weeks	Wuling Capsule: Wulingjun	Clinical effective rate HAMD	6	NA	yes; outcome assessors
Guan 2009[37]	Therapeutic effect of acupuncture plus deglutition training on patients with dysphagia caused by brainstem stroke	Quasi-RCT	60	^ 61.2±6.5 * 59.3±7.1	Dysphagia	^ 23.25±6.07 days * 25.11±5.54 days	2months	Lianquan, Tiantu, Fengchi, Renying, Hegu	WDT		NA	NA
Jia 2017[38]	Spasmodic hemiplegia after stroke treated with scalp acupuncture, music	RCT	76	^ 61±11 58±12	Motor function	2 week - 3 months	4 weeks	anteriorShencong, Xuanli, Baihui, Qubin	FMA BI MAS	NA	NA	NA

23

	therapy and rehabilitation: a randomized controlled trial			* 63±11	proble m							
Li 2012[9]	Observation on therapeutic effect of acupuncture combined with medicine on mild cognition disorders in patients with post - stroke	RCT	100	40 - 79	Cogni tive disord er	NA	3 months	Baihui, Shenting, Qucha, Shencong, Fengchi, Neiguan, Hegu, Zusanli, Sanyinjiao, Daxi, Zhaohai	Clinical effective rate MMSE HDS - R BI	6	NA	NA
Li 2015[20]	83 cases of depression due to stroke treated with therapy of integrated traditional Chinese and western medicine	RCT	166	30 - 75	Depre ssion	1 to 24 months	1 month	Modified Xiaoyansan:Baishao, Danggui, Chuanxiong, Chaihu, Yujin, Taoren, Honghua, Zhigancao	Clinical effective rate HAMA HAMD	NA	NA	NA
Li 2018[39]	Clinical observation on auricular magnetotherapy for convalescent stroke patients with depression	RCT	93	^ 59±11 * 59±12	Depre ssion	NA	4 weeks	Gan, Xin, Pi, Shen, Shenmen, Pizhixia	Clinical effective rate HAMD SS - QOL	10	4 weeks	yes, outcome accessors
Li 2019[29]	Influence of nape acupuncture therapy on swallowing function of patients with cerebral infarction	RCT	80	^ 40 * 40	Dysph agia	^ 61.9±7. 9 days *	^ 16.9±7. 1 *	Fengchi, Yiming, Gongxue, Zhiqiang, Tunyan, Lianquan, exteriorJinjin, exteriorYuye	FEES WDT SSA PAS		NA	NA

24

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

					63.6±6.9 days	18.5±8.1						
Lu 2010[30]	Therapeutic effects of neuromuscular electrical stimulation and electroacupuncture for dysphagia post stroke	RCT	45	59.87±7.94 ^ 60.65±9.33 * 60.96±8.25	Dysphagia	18.79±5.88 days ^ 17.85±7.09 days * 17.53±5.62 days	3 weeks	Lianquan, Hegu, Neiguan, Zusanli, Zhaohai	WDT VFSS	NA	NA	NA
Ma 2014[40]	Post - stroke dysphagia treated with acupoint injection combined with neural electrical stimulation	RCT	183	^ 50.6±11.1 47.25±10.5 * 51.2±10.8 49.9±11.8 51.5±10.9	Dysphagia	^ 25.3±8.4 days 23.8±5.2 days *24.4±7.1 days 25.2±6.9 days 24.5±5.7 days	30days	Tunyanxue	WDT Clinical effective rate	55	NA	yes; outcome assessors, data analysts

25

Magnusson 1994[41]	Sensory stimulation with acupuncture promotes normalization of the dynamic control of posture after hemispheric stroke	RCT	78	54 - 89	Motor function problem	≤10days	11 weeks	upperJuxu, Zusanli, Yanglingquan, Yuji, Chize, Waiguan, Baihui, Yinshi, Zhongfu, Taichong	Barthel Index Balance score	30died	1year	NA
Nie 2013[25]	Post - stroke depression treated with acupuncture and moxibustion: an evaluation of therapeutic effect and safety	RCT	123	51 - 81	Depression	NA	4 weeks	Acupuncture: Hegu, Taichong, Baihui, Yintang Moxibustion: Zhongwan, Xiawan, Guanyuan, Qihai	Clinical effective rate HAMD BI	NA	NA	NA
Wang 2016[31]	The study of acupuncture and swallowing training in the treatment of dysphagia after stroke	RCT	100	^ 50 * 50	Dysphagia	^ 134.28± 58.34 days * 128.35± 74.31 days	28 days	Fengchi, Wangu, Tianzhu, Lianquan, interiorDaying, Fenglong, Jinjin, Yuye	WDT Fujishima Ichiro swallowing effect score Clinical effective rate		NA	NA

26

Wang 2019[42]	Effect of Tui Na on upper limb spasticity after stroke: a randomized clinical trial	RCT	444	18 - 75	Motor function problem	1 to 3 months (270) 4 to 6 months (101) 7 to 12 months (67)	4 weeks	Jianyu, Jianliao, Quchi, Neiguan, Waiguan, Shousanli, Yangchi, Hegu	Mini - Mental Status Examination MAS FMA MBI	54	24weeks NA
Wang 2019a[10]	Effects of acupuncture treatment on lower limb spasticity in patients following hemorrhagic stroke: A pilot study	RCT	59	40 - 70	Motor function problem	30 to 90 days	4 weeks	Baihui, Taiyang, Yinmen, Fuxi, Xiyangguan, Yanglingquan, Zusanli, Tiaokou, Taichong	MAS FMA BI MEP IEMG	0	NA NA
Wei 2015[11]	Clinical study of acupuncture combined with rehabilitation training in the treatment of dysphagia after stroke	RCT	100	^ 61.50 ±4.20 * 62.50 ±4.90	Dysphagia	NA	2 weeks	Lianquan, Tiantu, Jinjin, Yuye, Hegu, Neiguan, Zusanli	MBI FIM	NA	NA NA
Wei 2016[43]	Synergistic effect of moxibustion and rehabilitation training in functional recovery of	RCT	84	^ 53.15 ±14.2 3 *	Motor function problem	^ 61.61±8 .75 days *	4 weeks	Zhongdi, Jiansui, Quchi, Shousanli, Waiguan, Hegu, Yanglingquan, Zusanli, Xuanzhong, Sanyinjiao	Brunnstor m MAS CSI FMA	NA	6 months	yes，outcome assessors

27

	post - stroke spastic hemiplegia			52.52 ±13.5 1		51.44±8 .143 days (2 weeks to 2 months)			MBI PRO			
Wong 1999[44]	Clinical trial of electrical acupuncture on hemiplegic stroke patients	RCT	118	^ 21 - 80 * 25 - 78	Motor functi on proble m	10 - 14 days from onset	2 weeks	Jianjing, Jianliao, Shousanli, Hegu, Futu, Xuehai, Yanglingquan, Taichong		NA	NA
Wu 2015[26]	30 cases of depression of post stroke with treatment Kaiyu Ditan Decoction	RCT	60	^ 58.1± 10.72 * 59.3± 9.97	Depre ssion	NA	4 weeks	Kaiyuditan Decoction：Banxia, Chenpi, Zhizi, Zhuru, Dannanxing, Shichangpu, Yujin, Fuling, Zhishi, Qingpi, Houpu, Chaihu, Foshou, Zisu, Chuanxiong, Chaobaizhu, Shengjiang, Gancao	CES - D10	NA	NA	NA

28

Wu 2015a[16]	Effect of Acupuncture Combined Physical Training and Relearning on Stroke Rehabilitation: a Multi - center Randomized Controlled Clinical Study	RCT	364	^(Centre1 : 64.92 ±11.51 Centre 2 : 63.56 ±13.25 Centre 3 : 60.30 ±9.29 Centre 4 : 66.00 ±10.64) *(Centre 1 : 64.51	Motor function problem	^(Centre 1 : 25.80±19.15 Centre 2 : 24.53±15.03 Centre 3 : 18.08±20.73 Centre 4 : 17.45±4.69) *(Centre 1 : 25.69±19.87 Centre 2 : 26.75±15.44 Centre	4 weeks	Yintang, Baihui, Sishencong, Fengchi, Jianyu, Quchi, Waiguan, Hegu, Huantiao, Zusanli, Xuanzhong, Sanyinjiao, Taichong	Fugl - Meyer Score FIM Score	NA	5 months	NA

				±11.41 Centre 2 : 60.53 ±13.47 Centre 3 : 60.48 ±10.65 Centre 4 : 63.50 ±11.38)	3 : 20.25±19.75 Centre 4 : 22.00±5.03)						
Xia 2015[12]	Clinical observation of acupuncture plus rehabilitation training for post - stroke depression	RCT	108	67±8	Depression	^ 40.2±13.7 days *	8 weeks	Yintang, Baihui, Sishencong, Zusanli, Sanyinjiao, Taichong, Neiguan, Shuigou,	ADL HAMD FMA MBI	10	3 months	NA

30

						38.9±11.6 days		Jiquan, Chize, Weizhong, Shenting				
Xia 2016[45]	Does the addition of specific acupuncture to standard swallowing training improve outcomes in patients with dysphagia after stroke? a randomized controlled trial	RCT	124	40 - 80	Dysphagia	4 - 12days	six days of therapy per week for a four - week period	Fengchi, Jiaji, Lianquan, Jiajianquan, Baihui, Lieque, Fenglong, Sanyinjiao, Jinjin, Yuye, Taixi, Zhaohai	SSA DOSS MBI SWAL - QOL	4 A(2) B(2)	NA	yes, evaluators
Xia 2016a[13]	Post - stroke dysphagia treated with acupuncture of meridian differentiation:a randomized controlled trial	RCT	116	^ 67±9 * 66±10	Dysphagia	^ 21.8±9.5 * re:20.4 ±8.7	6weeks	Neiguan, Shuigou, Sanyinjiao, Jiquan, Chize, Weizhong, Baihui, Fengchi, Lianquan, Jialiangquan, Jinjin, Yuye	SSA VFSS MBI SW - AL - QOL	14	3 months	yes; outcome assessors
Xu 2007[5]	Observation on effect of Wuling Capsule in treating poststroke depression	RCT	108	44 - 79	Depression	NA	3 months	Wuling Capsule: Wulingjun	HAMD MMSE SSS BI	4	NA	NA

31

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Yan 2016[46]	Therapeutic observation of thunder - fire moxibustion at Dazhui (GV14) and Shenshu (BL23) plus cognitive training for mild cognitive impairment due to ischemic cerebral stroke	RCT	60	43 - 80	Cognitive disorder	NA	8 weeks	Dazhui, Shenshu	Clinical effective rate MoCA MMSE ADL WMS	NA	NA	NA
Yang 2015a[27]	Clinical observation on the treatment with acupuncture combined with medicine on 33 cases with depression after apoplexy	RCT	63	30 - 80	Depression	1.94 years	6 weeks	Shenmen, Naogan, Xin, Gan, Shen	Clinical effective rate HAMD	NA	NA	NA
Zeng 2016[47]	Clinical study on acupuncture for ambulation disturbance in subacute stage of cerebral stroke	RCT	100	^ 66±12 * 68±10	Motor function problem	^ 34.74±2.92 * 34.18±2.86	8 weeks	Jianyu, Naohui, Shousanli, Waiguan, Zhongzhu, Chengfu, Yinmen, Weizhong, Yanglingquan, Chengjin	NIHSS FMA Bathel Score FAC Safety	NA	NA	NA
Zhang 2009[17]	Effect of heat - reinforcing needling combined with rehabilitation training on	RCT	80	^ 65.9± 11.1 *	Motor function	<= 2 weeks	3 weeks	Jianyu, Quchi, Hegu, Yanglingquan, Yinlingquan, Zusanli, Sanyinjiao	Fugl - Meyer eefictive rate	NA	NA	yes; outcome assessors

32

	the motor function of ischemic stroke patients			69.2± 9.7	problem						
Zhang 2014[48]	Observation on efficacy of acupuncture combined with rehabilitation training for post - stroke balance disorders	Quasi-RCT	59	30 - 75	Balance disorder	3 to 11 months	16 weeks	Dazhu, Dushu, Ganshu, Shenshu, Dachangshu, Guanyuanshu, Futonggu, Huangshu, Qixue, Liangmen, Tianshu, Daju, Fushe, Daheng, Fuai	Berg score ADL	NA	NA	NA
Zhang 2017[49]	Neuronavigation - Assisted Aspiration and Electro - Acupuncture for Hypertensive Putaminal Hemorrhage: A Suitable Technique on Hemiplegia Rehabilitation	RCT	240	^ 57.2± 9.6 * 56.72 ±8.3	Motor function problem	NA	8 weeks	Jiquan, Quchi, Shousanli, Hegu, Waiguan, Jianyu, Jianliao, Binao, Yanglingquan, Zusanli, Baihui, Dazhui, Chengshan, Sanyinjiao	FMA - UL FMA - LL MAS BI	NA	NA	NA
Zhao 2009[18]	Effect of acupuncture treatment on spastic states of stroke patients	RCT	131	^ 58.50 ±11.6 0 * 60.27	Motor function problem	^ 16.34±6 .09 * 16.76±6 .89	30days	Neiguan, Sanyinjiao, Shuigou, Jiquan, Chize, Weizhong, Fengchi	MAS FMA BI EMG	11	NA	yes；physician examining the patients and carrying

33

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

			±11.71								the measurements
Zheng 2018[50]	A clinical study on acupuncture in combination with routine rehabilitation therapy for early pain recovery of post - stroke shoulder - hand syndrome	RCT	178	45 - 70	Motor function problem	7 days - 3 months	1 month	Jianyu, Jianliao, Jianzhen, Jianneiling, Quchi, Shousanli, Hegu, Waiguan	Clinical effective rate VAS FMA FCA QOL	NA	NA	NA
Zhong 2002[8]	Effects of acupuncture and balance facilitation of muscular tension on the early rehabilitation of patients with stroke and hemiplegia	RCT	96	NA	Balance disorder	26 - 28 days	4 weeks	Tianfu, Cize, Shaohai, Quze, Hongzhong, Ximen, Neiguan, Yuji, Shenmen, Tongli, Huantiao, Futu, Fengshi, Zusanli, Yanglingquan, Weizhong, Chengshan, Jiexi, Kunlun	FMA ADL	NA	NA	NA
Zhou 2013[33]	Clinical research on post - stroke dysphagia treated with nape acupuncture and rehabilitation training	Quasi-RCT	80	^ 57±8 * 58±7	Dysphagia	^ 10.5±3.8 days * 15.1±7.7 days	4weeks	Fengchi, Yiming, Gongxue, Zhiqiang, Tunyan, Lianquan, exteriorJinjin, exteriorYuye	WDT SSA VFSS	NA	NA	NA

34

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Zhu 2014[51]	Clinical efficacy and sEMG analysis of a new traditional Chinese medicine therapy in the treatment of spasticity following apoplectic hemiparalysis	RCT	60	40 - 80 ^ 63.17 ±9.50 * 65.53 ±8.64	Motor function problem	^ 7.86±6.62 days * 8.46±5.14 days	4 weeks	Shaoyao Gancao Decoction: Shaoyao, Gancao	Modified Ashworth Scale Composite spascity scale Fugl - Meyer assessment scale Barthel Index IEMG RMS	NA	1 month	NA
Zhang 2020[52]	Clinical effect of traditional Chinese medicine acupuncture and moxibus - tion combined with rehabilitation training in the treatment of hemiplegia after cerebral apoplexy	RCT	60	^ 63.89 ±13.25 * 64.15 ±13.47	Motor function problem (Dependency)	NA	4 weeks	Jianliao, Binao, Liangqiu, Fengshi, Tianjing, Xuehai, Yanglingquan, Yinlingquan, Sanyinjiao	NIHSS MMT FMA ADL WHOQOL - BREF	NA	NA	NA

35

Teng 2019[21]	Effect of Peiyuan Xiaoshuan Jieyu prescription and brain protein hydrolysate on the levels of monoamine neurotransmitters in cerebrospinal fluid and serum 5 - hydroxytryptamine，brain - derived neurotrophic factor and apolipoprotein A1 in post - stroke depression patients with kidney deficiency and liver stagnation type	RCT	94	^ 62.4 ±5.8 * 63.1± 5.6	Depression	^ 8.7 ±3.8 months * 9.1 ±3.5months	12weeks	Peiyuanxiaoshuanjieyu Decoction: Huangqi, Baishu, Tianma, Gouqizi, Shudihuang, Baishao, Suanzaoren, Fuling, Zhimu, Xiangfu, Chaihu, Yujin	TCM HAMD	NA	NA	NA
Yan 2019[6]	Effect of western medicine combined with Chaihu plus Longgu Muli decoction in the treatment of patients with post - stroke depression	RCT	68	^ 60.40 ±3.42 * 60.22 ±3.37	Depression (Dependency)	^ 35.04±3.82 days * 34.85±3.76 days	2 months	Chaihujialonggumuli decoction: Muli, Huangqi, Longgu, Dangcen, Chaihu, Guizhi, Fuling, Xiangfu, Zhibanxia, Zhizi, Dahuang, Gancao, Dazao	TCM HAMD NIHSS Barthel index ADL	NA	NA	NA

36

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Fu 2019[24]	Effect of Acupuncture plus Medication on Electroencephalogram and the Levels of Serum NE, NSE, IL - 6 and TNF - α in Post - stroke Depression Patients	RCT	96	62±8	Depression	^ 6.13±1.12 months * 5.94±1.07 months	4 weeks	Baihui, Shuigou, Yintang, Neiguan, Sanyinjiao	HAMD Electroencephalography	NA	NA	NA
Ye 2020[7]	Clinical Study on Tongluo Ditan Tang Combined with Rehabilitation Training for Shoulder - Hand Syndrome After Stroke	RCT	95	^ 58.89±9.66 * 59.71±9.38	Motor function (dependency)	^ 34.67±12.50 days * 33.18±13.21 days	4 weeks	Tongluoditan Decoction: Huangqi, Baishao, Yanhusuo, Banxia, Fuling, Guizhi, Chuanxiong, Yujin, Qianghuo, Tiannanxing, Jiangcan, Dilong, Gancao	SHS TCM Clinical effective rate FMA VAS BI	NA	NA	NA
Jiang 2020[53]	Clinical Study of Dysphasia After Cerebral Stroke Mainly Treated with Three Tongue Needle Therapy	RCT	130	^ 60±10 * 60±9	Dysphasia	^ 16.46±9.06 days * 18.97±8.09 days	4 weeks	upperLianquan	HAMA HAMD sEMG	^ 3 * 7	NA	NA

37

Li 2019a[15]	The rapeutic Effect of Acupuncture Combined with rehabilitation Training on Shoulder - hand Syndrome after Stroke: 55 Cases	RCT	110	^ 43 - 74 * 45 - 73	Motor functi on proble m	* 17 - 56 days ^ 19 - 58 days	1 month	Jianyu, Jianliao, Quchi, Waiguan, Hegu	VAS FMA SHSS Clinical effective rate	NA	NA	NA
Wang 2020[4]	Clinical Observation of Gualou Guizhi Tang for Lower Limb Spasm After Stroke and Its Effect on Motor Function of Lower Limbs	RCT	203	^ 66.04 ±7.38 * 65.26 ±7.45	Motor Functi on	^ 36.52±9 .37 days * 35.41±1 0.16 days	4 weeks	Gualouguizhi Decoction: Gualougen, Guizhi, Shengjiang, Bai shao, Dazao, Gancao	TCM CSI FMA BI	0	NA	NA
Wang 2017[3]	Clinical Study on Treatment of Depression After Stroke with Combination of Chinese and Western Medicine	RCT	76	^ 59.1± 3.4 * 58.6± 2.9	Depre ssion (Depe ndenc y)	^ 4.1±1.7 months * 3.9±1.9 months	4 weeks	Shuganyishentongluo Decoction: Huangqi, Chaihu, Zhike, Shichangpu, Baishu, Yujin, Fuling, Danggui, Suanzaoren, Gancao	HAMD ADL Clinical effective rate	0	NA	NA
Wang 2016a[2]	Clinical efficacy of qi - tonifying and stasis - eliminating therapy in treatment of ischemic stroke patients in	RCT	125	^ 61.17 ±7.45 *	Depen dency	>= 14days	4 weeks	Qi-tonifying and stasis- eliminating decoction: Huangqi, Dilong, Chishao, Danggui,	NIHSS BI TCM	0	NA	NA

38

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

	recovery period and its influence on levels of hs - CRP，Fg and HCY			62.25 ±7.28				Fangfeng, Chuanxiong, Shuizhi, Quanxie			
Han 2018[22]	Chaihu plus Longgu Muli Decoction combined with Fluoxetine in the Treatment of Post Stroke Depression (Ganyu Tanrao) Randomized Parallel Control Study	Quasi-RCT	94	^ 59.71 ±5.29 * 59.69 ±5.28	Depression	^ 9.24±4.83 month * 9.21±4.82 month	4 weeks	Chaihu plus Longgu Muli decoction: Muli, Longgu, Danggui, Huangqi, Dangshen, Chaihu, Guizhi, Yujin, Dilong, Dazao, Banxia, Fuling, Gancao	HAMD MESSS GQOLI-74	0	NA	NA
Jia 2017a[54]	The effect of Chinese drug for tonify qi and activate the blood on dyskinesia at recovery period after ischemic storke with syndrome of qi deficiency and blood stasis and its effect on S100βand Hcy	RCT	140	^ 64.90 ±5.34 * 64.72 ±5.30		^ 38.10±6.38 days * 38.19 ± 6.41 days	8 weeks	modified Buyanghuanwu Decoction: Huangqi, Dangcan, Chuanniuxi, Dilong, Sangjisheng, Jixueteng, Guizhi, Danggui, Chishao, Chuanxiong, Duzhong, Shenjincao, Gancao	TCM FMA BI Berg score	0	NA	NA
Xiang 2016[32]	Therapeutic Observation of Low - frequency Electrical Stimulation plus Acupuncture for Deglutition Disorders	RCT	76	^ 53±8 * 54±8	Dysphagia	^ 21.14±4.38 days *	5.7 weeks	Neiguan, Shuigou, Sanyinjiao, Fengchi, Wangu, Yifeng	WDT Clinical effective rate	0	NA	NA

39

	After Cerebral Stroke				23.66±5.01 days						
Xu 2014[55]	Efficacy assessment of treating post - stroke shoulder - hand syndrome patients of yin deficiency yang hyperactivity with blood stasis stagnation collaterals syndrome by yishen tongluo decoction	RCT	60	^ 63.15 ±8.51 * 64.23 ±7.66	^ 32.21±7.16 days * 31.18 ± 7.85 days	4 weeks	Yishenjiejing decoction: Duzhong, Tianma, Sanqi, Shanyurou, Quanxie, Baishao	Clinical effective rate NIHSS TCM FMA	0	NA	NA
Wan 2013[56]	Post - stroke shoulder - hand syndrome treated with acupuncture and rehabilitation: a randomized controlled trial	RCT	120	^ 60±6 * 63±6	^ 38.4±9.0 days * 33.0 ± 9.4 days	4 weeks	Taiyuan, Zusanli, Xuanzhong, Waiguan, Shousanli, Quchi, Jianpi	FMA VRS NIHSS	0	NA	NA
Xu 2016[57]	Clinical Observation of Jin's Three - needle Acupuncture plus Rehabilitation for Post - stroke Spastic Hemiplegia	RCT	76	^ 60±10 * 65±6	^ 50.39±22.52 days * 47.75±	4 weeks	Niesanzhen, Jiquan, Chize, Neiguan, Shuqi, Yinlingquan, Sanjinjiao	NDS FMA ADL BI FCA FIM CFE	^ 2 * 3	NA	NA

40

					22.63 days						
Chen 2016[58]	Efficacy Study of Acupuncture and Moxibustion on Dysphagia after Stroke	RCT	60	^ 61.63 ±10.87 * 60.90 ±10.53		^ 47.68 days * 41.63 days	4 weeks	Fengchi, Wangu, Tianzhu, Lianquan, interiorDaying, Jinjin, Yuye	WDT PRO	0	NA	NA
Tang 2016[1]	Analysis of five Buyanghuanwu decoction combined with western medicine treatment of stroke sequela	Quasi-RCT	80	^ 63.34 ±2.26 * 63.91 ±2.58	Motor function problem	^ 5.67± 0.32 months * 5.61±0.35 months	4.3 weeks	Buyanghuanwu Decoction: Huangqi, Chuanxiong, Dangguiwei, Taoren, Dilong, Honghua	NIHSS FMA BI	0	NA	NA

41

List of included studies' references

1. Tang D, Tang Y. Analysis of five Buyanghuanwu decoction combined with western medicine treatment of stroke sequela. *Cardiovascular Disease Journal of Integrated Traditional Chinese and Western Medicine*. 2016;14:139-140.

2. Wang C. Clinical efficacy of qi-tonifying and stasis-eliminating therapy in treatment of ischemic stroke patients in recovery period and its influence on levels of hs-CRP, Fg and HCY. *Journal of Clinical Medicine in Practice*. 2016;20:28-31.

3. Wang Y. Clinical Study on Treatment of Depression After Stroke with Combination of Chinese and Western Medicine. *Acta Chinese Medicine*. 2017;32:1519-1522.

4. Wang J, Xing Y and Jiang S. Clinical observation of Gualou Guizhi Tang for lower limb spasm after stroke and its effect on motor function of lower limbs. *Journal of New Chinese Medicine*. 2020;52:28-31.

5. Xu B, Zhou WY and Zhang SJ. Observation on effect of wuling capsule in treating poststroke depression. *Chinese journal of integrated traditional and western medicine*. 2007;27:640-642.

6. Yan Q, Yang G. Effect of western medicine combined with Chaihu plus Longgu Muli decoction in the treatment of patients with post-stroke depression. *Clinical Research and Practice*. 2019;36:152-154.

7. Ye S, Yang G, Jin J, et al. Clinical Study on Tongluo Ditan Tang Combined with Rehabilitation Training for Shoulder-Hand Syndrome After Stroke. *Journal of New Chinese Medicine*. 2020;52:70-72.

8. Zhong CM, Liu QF, Jin HY, et al. Effects of acupuncture and balance facilitation of muscular tension on the early rehabilitation of patients with stroke and hemiplegia. *Chinese Journal of Clinical Rehabilitation*. 2002;6:3612-3613.

9. Li W, Ceng YH and Yu XG. Observation on therapeutic effect of acupuncture combined with medicine on mild cognition disorders in patients with post-stroke. *Chinese acupuncture & moxibustion*. 2012;32:3-7.

10. Wang HQ, Hou M, Bao CL, et al. Effects of acupuncture treatment on lower limb spasticity in patients following hemorrhagic stroke: A pilot study. Eur Neurol. 2019;81:5-12.

11. Wei HT, Peng T, Yang D, et al. Clinical study of acupuncture combined with rehabilitation training in the treatment of dysphagia after stroke. *Journal emergency in traditional chinese medicine*. 2015;24:1808-1810.

12. Xia JH, Xu CE, Xia WG, et al. Clinical observation of acupuncture plus rehabilitation training for post-stroke depression. *Shanghai journal of*

42

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

acupuncture and moxibustion. 2015;34:724-727.

13. Xia W, Zheng C, Xia J, et al. Post-stroke dysphagia treated with acupuncture of meridian differentiation:A randomized controlled trial. *Chinese acupuncture & moxibustion*. 2016;36:673-678.

14. Cheng XK, Wang ZM, Sun L, et al. Post-stroke hand dysfunction treated with acupuncture at zhongzhu (Te 3) and waiguan (Te 5). *Chinese acupuncture & moxibustion*. 2011;31:117-120.

15. Li Y, Li L. The rapeutic Effect of acupuncture combined with rehabilitation training on shoulder-hand syndrome after Stroke: 55 cases. *Chinese Journal of Ethnomedicine and Ethnopharmacy*. 2019;28:96-98.

16. Wu XL, Mi ZP, Wang HS, et al. Effect of acupuncture combined physical training and relearning on stroke rehabilitation: A multi-center randomized controlled clinical study. *Chinese journal of integrated traditional and Western medicine*. 2015;35:549-554.

17. Zhang NX, Liu GZ, Huang TQ, et al. Effect of heat-reinforcing needling combined with rehabilitation training on the motor function of ischemic stroke patients. *Acupuncture research*. 2009;34:406-409.

18. Zhao JG, Cao CH, Liu CZ, et al. Effect of acupuncture treatment on spastic states of stroke patients. J Neurol Sci. 2009;276:143-147.

19. Fu JL, Zhao YW and Sun XJ. Efficacy and safety of deanxit combined with wuling capsule in treating post-stroke depression: A randomized controlled trial. *Journal of Chinese integrative medicine*. 2008;6:258-261.

20. Li TG. 85 cases of depression due to stroke treated with therapy of integrated traditional chinese and western medicine. *Henan traditional chinese medicine*. 2015;35:535-536.

21. Teng X, Gao L and Zhou B. Effect of Peiyuan Xiaoshuan Jieyu prescription and brain protein hydrolysate on the levels of monoamine neurotransmitters in cerebrospinal fluid and serum 5-hydroxytryptamine, brain-derived neurotrophic factor and apolipoprotein A1 in post-stroke depression patients with kidney deficiency and liver stagnation type. *Heibei J TCM*. 2019;41:397-401.

22. Yan Q, Yang G. Effect of western medicine combined with Chaihu plus Longgu Muli decoction in the treatment of patients with post-stroke depression. *Clinical Research and Practice*. 2019;36:152-154.

23. Chen A, Gao Y, Wang G, et al. Effect of early acupuncture intervention on post-stroke depression: A randomized controlled trial. *Chinese acupuncture & moxibustion*. 2018;38:1141-1144.

24. Fu W. Effect of Acupuncture plus Medication on Electroencephalogram and the Levels of Serum NE, NSE, IL-6 and TNF-α in Post-stroke Depression Patients. *Shanghai J Acu-mox*. 2019;38:1214-1218.

43

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

25. Nie RR, Huang CH. Post-stroke depression treated with acupuncture and moxibustion: An evaluation of therapeutic effect and safety. *Chinese acupuncture & moxibustion*. 2013;33:490-494.

26. Wu JR, Yang JC and Nie J. 30 case of depression of post stroke with treatment kaiyu ditan decoction. *Journal of jiangxi university of traditional chinese medicine*. 2015;27:50-54.

27. Yang J, Wang F and Xiao W-H. Clinical observation on the treatment with acupuncture combined with medicine on 33 cases with depression after apoplexy. *Journal emergency in traditional chinese medicine*. 2015;24:1227-1228.

28. Fan CF, Jiang HY and Wu LZ. Clinical observations on acupuncture treatment of post-stroke dysphagia. *Journal of Acupuncture and Tuina Science*. 2007;5:297-300.

29. Li XZ, Gu BL, Zhou H, et al. Influence of nape acupuncture therapy on swallowing function of patients with cerebral infarction. *Medical Journal of Chinese People's Liberation Army* 2019;44:322-326.

30. Lu M, Meng L and Peng J. Therapeutic effects of neuromuscular electrical stimulation and electroacupuncture for dysphagia post stroke. *Chinese journal of rehablitation medicine*. 2010;25:135-138.

31. Wang ZJ, Zhang Y, Ji QC, et al. The study of acupuncture and swallowing training in the treatment of dysphagia after stroke. *China and foreign medical treatment*. 2016;36:174-176.

32. Xiang L, Liu X, Xu Z. Therapeutic Observation of Low-frequency Electrical Stimulation plus Acupuncture for Deglutition Disorders After Cerebral Stroke. *Shanghai J Acu-mox*. 2016;35:1417-1419.

33. Zhou XM, Li XZ and Gu BL. Clinical research on post-stroke dysphagia treated with nape acupuncture and rehabilitation training. *Chinese acupuncture & moxibustion*. 2013;33:587-590.

34. Chu J, Liu X, Chen F, et al. Effects of gao's neck acupuncture on swallowing function and quality of life in patients with post-stroke pseudobulbar palsy:A randomized controlled trial. *Chinese acupuncture & moxibustion*. 2017;37:691-695.

35. Bai YL, Li L, Hu YS, et al. Prospective, randomized controlled trial of physiotherapy and acupuncture on motor function and daily activities in patients with ischemic stroke. *J Altern Complement Med*. 2013;19(8):684-689.

36. Xia W, Zheng C, Zhu S, et al. Combination of feeding-swallowing training and acupuncture:An effective rehabilitation method for dysphagia post strok. *Acta Med Univ Sci Technol Huazhong*. 2010;39:614-619.

37. Guan CX, Guo GH and Yu L. Therapeutic effect of acupuncture plus deglutition training on patients with dysphagia caused by brainstem

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

stroke. *Journal of medical forum*. 2009;30:19-23.

38. Jia C, Zhang H, Ni G, et al. Spasmodic hemiplegia after stroke treated with scalp acupuncture, music therapy and rehabilitation: A randomized controlled trial. *Chinese acupuncture & moxibustion*. 2017;37:1271-1275.

39. Li Z, Liu F, Luo B, et al. Clinical observation on auricular magnetotherapy for convalescent stroke patients with depression. *Chinese acupuncture & moxibustion*. 2018;38:942-947.

40. Ma FX, Cao GP and Li WL. Post-stroke dysphagia treated with acupoint injection combined with neural electrical stimulation. *Chinese acupuncture & moxibustion*. 2014;34:1169-1173.

41. Magnusson M, Johansson K and Johansson BB. Sensory stimulation promotes normalization of postural control after stroke. *Stroke*. 1994;25:1176-1180.

42. Wang M, Liu S, Peng Z, et al. Effect of Tui Na on upper limb spasticity after stroke: a randomized clinical trial. *Ann Clin Transl Neurol*. 2019;6(4):778-787.

43. Wei YX, Zhao X and Zhang BC. Synergistic effect of moxibustion and rehabilitation training in functional recovery of post-stroke spastic hemiplegia. *Complement Ther Med*. 2016;26:55-60.

44. Wong AM, Su TY, Tang FT, et al. Clinical trial of electrical acupuncture on hemiplegic stroke patients. *Am J Phys Med Rehabil*. 1999;78(2):117-122.

45. Xia W, Zheng C, Zhu S, et al. Does the addition of specific acupuncture to standard swallowing training improve outcomes in patients with dysphagia after stroke? a randomized controlled trial. *Clin Rehabil*. 2016;30(3):237-246.

46. Yan HD, Yang N, Zhao MH, et al. Therapeutic Observation of Thunder-fire Moxibustion at Dazhui (GV14) and Shenshu (BL23) plus Cognitive Training for ;Mild Cognitive Impairment Due to Ischemic Cerebral Stroke. *Shanghai Journal of Acupuncture and Moxibustion*. 2016;12:1410-1413.

47. Zeng YH, Bao Y, Zhu M, et al. Clinical study on acupuncture for ambulation disturbance in subacute stage of cerebral stroke. *Shanghai journal of acupuncture and moxibustion*. 2016;35:262-265.

48. Zhang HY, Li PF. Observation on efficacy of acupuncture combined with rehabilitation training for post-stroke balance disorders. *World Journal of Acupuncture - Moxibustion*. 2014;24:25-29.

49. Zhang Y, Al-Aref R, Fu H, et al. Neuronavigation-Assisted Aspiration and Electro-Acupuncture for Hypertensive Putaminal Hemorrhage: A

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Stroke Vasc Neurol

Suitable Technique on Hemiplegia Rehabilitation. *Turk Neurosurg*. 2017;27(4):500-508.

50. Zheng J, Wu Q, Wang L, et al. A clinical study on acupuncture in combination with routine rehabilitation therapy for early pain recovery of post-stroke shoulder-hand syndrome. *Exp Ther Med*. 2018;15:2049-2053.

51. Zhu W, Zheng G, Gu Y, et al. Clinical efficacy and sEMG analysis of a new traditional Chinese medicine therapy in the treatment of spasticity following apoplectic hemiparalysis. *Acta Neurol Belg*. 2014;114(2):125-129.

52. Zhang J, Zheng W. Clinical effect of traditional Chinese medicine acupuncture and moxibustion combined with rehabilitation training in the treatment of hemiplegia after cerebral apoplexy. *China Modern Medicine*. 2020;27:155-158.

53. Jiang Y, Lin L, You Y, et al. Clinical Study of Dysphasia After Cerebral Stroke Mainly Treated with Three Tongue Needle Therapy. *Shanghai J Acu-mox*. 2020;39:530-535.

54. Jia L, Zhang J, Wang G, et al. The effect of Chinese drug for tonify qi and activate the blood on dyskinesia at recovery period after ischemic storke with syndrome of qi deficiency and blood stasis and its effect on S100βand Hcy. *Modern Journal of Integrated Traditional Chinese and Western Medicine*. 2017;32:3551-3554.

55. Xu X, Ye S. Efficacy assessment of treating post-stroke shoulder-hand syndrome patients of yin deficiency yang hyperactivity with blood stasis stagnation collaterals syndrome by yishen tongluo decoction. *Chinese journal of integrated traditional and Western medicine*. 2014;34:1069-1073.

56. Wan WR, Wang TL, Cheng SL, et al. Post-stroke shoulder-hand syndrome treated with acupuncture and rehabilitation: a randomized controlled trial. *Chinese acupuncture & moxibustion*. 2013;33:970-974.

57. Xu S, Gu J. Clinical Observation of Jin's Three-needle Acupuncture plus Rehabilitation for Post-stroke Spastic Hemiplegia. *Shanghai J Acu-mox*. 2016;35:153-156.

58. Chen L, Zhang G. Efficacy Study of Acupuncture and Moxibustion on Dysphagia after Stroke. *Journal of Emergency in Traditional Chinese Medicine*. 2016;25:1111-1113.